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State laws on union registration and filing of reports

Legislative restrictions on the closed shop

UNITED STATES DEPARTMENT OF LABOR

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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

LAWRENCE R. KLEIN, Editor

JUNE 1947, Vol. 64, No. 6

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This Issue in Brief

The wage rationalization program in United States Steel

Following 2 years of joint work, the United States Steel Corp. and the United Steelworkers of America last January concluded a job classification agreement which established a new precedent in labor-management arrangements in so complex an industry as steel. The article on page 967, by Robert Tilove, Executive Secretary of the Steel Commission, discusses in detail the problems, procedures, and significance of the agreement which classified jobs for the purpose of eliminating wage-rate inequities. The negotiations, which were characterized by good will and mutual confidence and respect by the parties from the outset, were formalized through a series of five written agreements, each representing successive stages of the classification program. The negotiations were the more remarkable since management, for the most part, has considered job classification its exclusive prerogative, and unions, on the other hand, have, in most instances, been wary of involvement in a formal job-evaluation plan.

Money and real weekly earnings during defense, war, and reconversion periods

Since August 1939 money and real weekly earnings have been significantly affected by shifting economic developments, particularly as reflected in changes in employment, weekly work hours, and wage rates. Between August 1939 and December 1941 earnings of workers in the durable-goods industries, textile manufacturing, and coal mining were most strongly influenced by the defense program. Except for the utility and trade groups, earnings generally rose more than living costs. Between December 1941 and April 1945 both money and real earnings increased substantially in the great majority of industries. In the period of reconversion between April 1945 and June 1946 the favored position of the heavy-goods industries in both money and real terms was reversed, chiefly as a result of a sharp drop in weekly work hours. Substantial wage-rate increases, combined with comparatively stable hours, enabled bituminous-coal mining, railroads, retail trade, and various nondurable-goods manufacturing industries to increase earnings more than the rise in living costs.

NOTICE TO READERS OF THE REVIEW

Effective with Volume 65, No. 1 (July 1947), the page size of the Monthly Labor Review will be changed. The new page size will be 7⅞ by 10¼ inches, which will provide space for two columns of type on a page and make, we hope, for greater readability. There will be no change in general policy regarding the content of the Review.

Except for railroads and coal mining, weekly earnings in all of the industries covered rose between June 1946 and February 1947. Real earnings, however, fell in all but two instances because of the unparalleled rise in living costs. The relative standing of money and real earnings in February 1947, as compared with previous levels, varies significantly depending upon the period selected for comparison. Page 983.

Progress of State minimum-wage legislation, 1946

In State minimum-wage activity, the year 1946 was notable both for wage orders put into effect and for work in process on additional orders. One State, Massachusetts, amended its law to extend coverage to men. During the year, 15 revised orders became effective in 10 jurisdictions, raising previous wage rates from a third to a half. All 1946 orders, except in one State, set rates higher than the present 40-cent Federal minimum, including an order applicable to interstate workers covered by the Federal act. Eight States in 1946 issued revised cost-of-living budgets for wage-board use. At the end of 1946, work already begun contemplated issuance of approximately 36 additional orders. Page 1040.

Wages in sawmills in the South, September–October 1946

Straight-time hourly earnings of sawmill workers in the South averaged 64 cents in the fall of 1946. Three-fifths of the workers received less than 65 cents an hour. The highest earnings (averaging 75 cents) were reported in West Virginia, and the lowest (59 cents) were found in Alabama. Page 1029.

Wage structure of the textile dyeing and finishing industry, July 1946

Textile dyeing and finishing plant workers averaged 89 cents an hour, exclusive of overtime and shift premiums, in July 1946; men received 92 cents and women 75 cents, the latter comprising only about a sixth of the plant labor force. Over-all averages by type of material being processed were 96 cents for silk and rayon, 85 cents for cotton and linen, and 86 cents for woolens and worsteds. Workers in the Middle Atlantic region (predominantly silk and rayon processing) averaged 96 cents an hour, while those in New England and the Southeast (largely cotton and linen processing) averaged 91 and 78 cents, respectively—each region representing, roughly, a third of the industry's employment. Differences in product and processes, with accompanying variations in occupational structure, contributed substantially to these over-all variations. Page 1034.

Extent of collective agreements in seven European countries

In Great Britain, Scandinavia, France, Belgium, and the Netherlands, collective agreements today are broader in coverage, more uniform as to standards, and have greater legal force than in 1939. Collective agreements in these countries are frequently negotiated on an industry-wide basis, and in France recent legislation requires industry-wide agreements. However, government wage controls still limit the freedom of collective bargaining in most of the countries cited. Legal instruments for the enforcement of collective agreements include labor courts in Scandinavia and regular courts in the Netherlands and France; but in Belgium and Great Britain the agreements are simply "Gentlemen's agreements." Central federations of employers' associations on the one hand and of trade-unions on the other are assisting in the negotiation of collective agreements and in codifying industrial relations in many of these countries. Page 1019.

Current statistics of labor interest in selected periods [1]

[Available in reprint form]

Item	Unit or base period	1947			1946	1939: Average for year
		April	March	February	April	
Employment and unemployment						
Civilian labor force (BC): Total	Thousands	59,120	58,390	58,010	56,450	[2] 54,230
Male	do	42,800	42,440	42,100	39,860	[2] 40,950
Female	do	16,320	15,950	15,910	16,590	[2] 13,280
Employed [3]	do	56,700	56,060	55,520	54,120	[2] 46,930
Male	do	40,900	40,590	40,090	37,990	[2] 35,600
Female	do	15,800	15,470	15,430	16,130	[2] 11,300
Nonagricultural	do	48,840	48,820	48,600	45,950	[2] 37,430
Agricultural	do	7,860	7,240	6,920	8,170	[2] 9,500
Unemployed	do	2,420	2,330	2,490	2,330	[2] 7,300
Male	do	1,900	1,850	2,010	1,870	[2] 5,350
Female	do	520	480	480	460	[2] 1,950
Civilian employment in nonagricultural establishments: Total [3]	do	41,767	42,043	41,849	39,908	30,287
Manufacturing	do	15,418	15,511	15,475	14,045	10,078
Mining	do	856	▶ 879	880	542	845
Construction [4]	do	1,619	1,534	1,502	1,356	1,150
Transportation and public utilities	do	3,791	4,021	4,011	3,991	2,912
Trade	do	8,551	8,563	8,507	8,329	6,705
Finance, service, and miscellaneous	do	6,106	6,120	6,107	5,984	4,610
Federal, State, and local government, including Federal force-account construction	do	5,426	5,415	5,367	5,661	3,988
Military personnel	do	1,777	1,834	1,906	4,346	367
Production-worker employment:						
Manufacturing	do	12,523	12,614	12,593	11,347	8,192
Bituminous-coal mining	do	309	332	335	75.3	371
Class I steam railroads, including salaried employees (ICC)	do	1,345	1,325	1,324	1,346	988
Hired farm workers (BAE)	do	1,671	1,545	1,587	1,652	[5] 2,109
Hours and earnings						
Average weekly earnings:						
Manufacturing		$47.50	$47.72	$47.29	$42.88	$23.86
Bituminous-coal mining		-------	$64.90	$65.30	[6] $58.30	$23.88
Retail trade		-------	$35.31	$35.27	[6] $31.12	$21.17
Building construction (private)		$60.53	$61.23	$58.92	$54.29	$30.39
Average weekly hours:						
Manufacturing	Hours	40.1	40.4	40.4	40.5	37.7
Bituminous-coal mining	do	-------	43.7	43.6	[6] 45.9	27.1
Retail trade	do	-------	40.0	40.1	[6] 40.5	43.0
Building construction (private)	do	37.1	38.0	36.9	38.2	32.6
Average hourly earnings:						
Manufacturing		$1.186	$1.180	$1.170	$1.058	$0.633
Bituminous-coal mining		-------	$1.484	$1.491	[6] $1.274	$0.886
Retail trade		-------	$0.963	$0.957	[6] $0.841	$0.536
Building construction (private)		$1.634	$1.610	$1.598	$1.423	$0.933
Average straight-time hourly earnings in manufacturing, using—						
Current employment by industry		-------	$1.142	$1.133	[6] $0.998	$0.622
Employment by industry as of January 1941		-------	$1.139	$1.131	[6] $1.007	$0.640
Quarterly farm wage rate, per day without board (BAE)		$4.77	-------	-------	$4.36	[5] $1.53
Industrial injuries and labor turn-over						
Industrial injuries in manufacturing per million man-hours worked		-------	[6] 15.8	16.2	[6] 17.6	15.4
Labor turn-over per 100 employees in manufacturing:						
Total separations		5.2	4.9	4.5	6.3	[5] 3.5
Quits		3.7	3.5	3.2	4.3	[5] 0.8
Lay-offs		1.0	0.9	0.8	1.4	[5] 2.6
Total accessions		5.1	5.1	5.0	6.7	[5] 2.9
Labor-management disputes						
Work stoppages beginning in month:						
Number		460	325	290	504	218
Number of workers involved	Thousands	600	100	90	566	98
All work stoppages during month:						
Number of man-days idle	do	7,750	850	1,230	14,300	1,484
Man-days idle as percent of available working time		1.1	0.1	0.2	2.2	0.28

See footnotes at end of table.

Current statistics of labor interest in selected periods [1]—Continued

Item	Unit or base period	1947			1946	1939: Average for year
		April	March	February	April	
Prices						
Consumers' price index (for moderate income families in large cities): All items	1935–39=100	156.1	156.3	153.2	131.1	99.4
All foods	1935–39=100	188.0	189.5	182.3	141.7	95.2
Cereals and bakery products	1935–39=100	153.4	148.1	144.1	113.3	94.5
Meats	1935–39=100	202.6	207.6	196.7	132.8	96.6
Dairy products	1935–39=100	178.9	187.5	183.2	137.4	95.9
Eggs	1935–39=100	176.3	174.7	169.9	137.7	91.0
Fruits and vegetables	1935–39=100	200.4	199.6	191.7	185.9	94.5
Beverages	1935–39=100	189.5	186.9	182.8	125.1	96.5
Fats and oils	1935–39=100	227.8	219.1	201.3	126.1	87.7
Sugar and sweets	1935–39=100	179.3	178.6	178.1	135.3	100.6
Clothing	1935–39=100	184.6	184.3	181.5	154.5	100.5
Rent	1935–39=100	109.0	109.0	[7] 108.9	[6] 108.4	104.3
Fuel, electricity, and ice	1935–39=100	118.4	117.6	117.5	110.4	99.0
Housefurnishings	1935–39=100	182.4	182.3	180.8	152.0	101.3
Miscellaneous	1935–39=100	139.1	138.2	137.4	126.7	100.7
Wholesale price index: All commodities	1926=100	[8] 147.7	[8] 149.5	[8] 144.5	110.2	77.1
All commodities other than farm products	1926=100	[8] 141.0	[8] 142.1	[8] 138.6	104.5	79.5
All commodities other than farm products and foods	1926=100	[8] 131.8	[8] 131.1	[8] 128.5	103.3	81.3
Farm products	1926=100	177.0	182.6	170.4	135.4	65.3
Foods	1926=100	162.4	167.6	162.0	110.8	70.4
National income and expenditures						
National income payments (BFDC)	Millions	$14,059	$14,686	$13,467	$12,960	[5] $5,724
Consumer expenditures of goods and services (BFDC)	do		[9] $32,235		[9] $28,132	[9] $14,256
Retail sales (BFDC)	do	$8,819	$8,746	$7,464	$7,707	[5] $3,471
Production						
Industrial production index, unadjusted (FR): Total	1935–39=100	185	187	185	163	100
Manufactures	1935–39=100	193	194	193	174	109
Minerals	1935–39=100	138	143	140	99	106
Bituminous coal (BM)	Thousands of short tons.	41,120	54,995	50,640	3,506	32,905
Car loadings index, unadjusted (FR)	1935–39=100	134	137	133	107	101
Electric energy (FPC): Total	Millions of kw.-hr.	24,652	25,544	23,698	21,265	([10])
Utilities (production for public use)	do	20,504	21,246	19,616	17,477	[5] 9,751
Industrial establishments	do	4,148	4,298	4,082	3,788	([10])
Construction						
Construction expenditures	Millions	$999	$913	$863	$830	[5] $526
Permit valuation of urban building construction	do	$435	$382	$277	$436	([10])
New nonfarm family dwelling units [11]		70,100	61,600	44,400	84,000	[5] 42,900

[1] Source: Bureau of Labor Statistics unless otherwise indicated. Abbreviations used: BC (Bureau of the Census); ICC (Interstate Commerce Commission); BAE (Bureau of Agricultural Economics); BFDC (Bureau of Foreign and Domestic Commerce); FR (Federal Reserve); BM (Bureau of Mines); FPC (Federal Power Commission). Most of the current figures are preliminary.

[2] 10-month average—March to December 1940—Not comparable with later figures. Revisions are in process.

[3] Excludes employees on public emergency work, these being included in unemployed civilian labor force. Civilian employment in nonagricultural establishments differs from nonagricultural employment in civilian labor force mainly because of the inclusion in the latter of such groups as self-employed and domestic and casual workers.

[4] Revisions of the construction series include the transfer of Federal force-account employment to the Government series. Certain additional revisions have been made in this and some of the other series. (See p. 921 of May 1947 issue.)

[5] April.

[6] March.

[7] All cities not surveyed: Rent index of February based on 6 cities.

[8] Includes current motor vehicle prices. See note on p. 1105 of this issue.

[9] First quarter.

[10] Not available.

[11] These figures are not adjusted to allow for lapse in building permits and the lag between issuance of building permits and the start of construction. For information on number of dwelling units actually started for which these adjustments have been made, see the section on Construction, pp. 1108–1116.

MONTHLY LABOR REVIEW

JUNE 1947

The Wage Rationalization Program in United States Steel

By ROBERT TILOVE, *Executive Secretary, Steel Commission* [1]

ON JANUARY 13, 1947, after almost 2 years of constant negotiation, the steel-producing subsidiaries of the United States Steel Corp. and the United Steelworkers of America (CIO) concluded an agreement on the classification of jobs for the purpose of eliminating intraplant wage-rate inequities. This agreement entailed a wage increase of approximately 15 million dollars annually and 32 million dollars retroactively.

The results of the program were written into the 2-year labor contract which the company and the union signed on April 22, 1947.

These agreements were the culminating points in a program of wage rationalization which represents an application of industrial engineering and collective bargaining without parallel in American industry.

For the first time, a set of standard hourly wage scales was established for the principal steel-making subsidiaries of U. S. Steel. These wage scales, except for a southern differential, were made uniform for more than 40 plants from coast to coast. These agreements dealt with occupational wage inequities both within and among the plants.

That same system of job description and classification is now being applied, jointly by labor and management, to all but a few of the Nation's basic steel plants. It is clear that this will go a long way toward equalization of wage scales throughout the industry. Furthermore, this pressure to equalize occupational rates will probably spread to metalworking plants that bargain in the shadow of basic steel.

Significant in itself as a major development in steel's industrial relations, this "inequity program" attracts a universal interest as a milestone in the application of industrial engineering techniques through collective bargaining.

It was not a theory which inspired this program. Internal wage-rate inequities had been a continuing problem in the steel industry.

[1] The Steel Commission, a part of the U. S. Department of Labor, was originally set up by the National War Labor Board in order to carry out its directive order for the elimination of intraplant wage-rate inequities in the steel industry. The views expressed are entirely the author's.

Wage inequities are apt to be a lively question in any large plant in which rates "just grew" in the absence of a planned program for orderly wage administration. There were, however, conditions in steel which had combined to aggravate the problem:

(1) Steel jobs do not easily fall into neatly repeated patterns of identical occupations; they therefore elude control except by means of a planned system.

(2) Constant technological change, whether of equipment, materials, processes, products, or work assignments, have tended to accumulate wage-rate dislocations.

(3) The coexistence of time payments and incentive systems in practically endless variety has engendered a host of problems, not the least of which was the comparatively better lot of incentive workers under conditions of wartime production.

(4) The past practice of sometimes accommodating wage rates to the price or profitability of the particular product had put different rewards on identical job content.

(5) The past practice of "subcontracting" to certain crew bosses the hiring and payment of their men had left a residue in the form of some unusual rate differentials.

(6) There were marked inequalities in bargaining power among employees, taken as groups or as individuals, based in part on differences in the controllability and bottle-neck character of various operations.

(7) The introduction of a uniform workweek had made more objectionable comparatively low hourly rates that previously could be built into larger earnings through a longer workweek.

(8) Similarly, because of a sustained high rate of operations, certain jobs could no longer offer an advantage in steadier employment to offset comparatively low hourly rates.

Unionization had added urgency to the creation of a standard wage structure. Big Steel unionism is only 10 years old. It came at a time when U. S. Steel was well advanced in the preparation, but not the actual application, of a program of job evaluation.

The first contract in 1937 provided that wage inequalities could be adjusted during the life of the agreement on a mutually satisfactory basis. Apparently nothing more was contemplated than fragmentary treatment of wage inequalities, whether intraplant or interplant, through the piece-meal adjustment of individual grievances, without any broader program of rate review. There was no provision for arbitration in the event that agreement was not reached.

The contracts signed in September 1942 provided for a joint union-management commission to seek agreement for a complete overhauling of the corporation's internal wage structure. This temporary

commission was to strive for a formula by which inequalities within the steel plants might be determined and eliminated. Such an over-all review was not to result in any "substantial increase in the company's total pay-roll cost or prejudice to the company's competitive position."

This commission made a determined effort, over a period of 6 months, to reach agreement. It failed. The corporation sought negotiations on the basis of its evaluation manual. The union counter-proposed the creation of an 8-million-dollar fund to correct inequalities. With persistence of this deadlock, the commission was disbanded.

The processing of individual wage inequality grievances, which had been suspended during the life of the commission, was then resumed. In subsequent months, the issue of wage inequalities grew in importance until it furnished about two-thirds of the grievances processed in the corporation's plants.

Wartime conditions helped to aggravate the problem. A high rate of production, steady employment, and reduction of product varieties tended to enlarge the imbalance between most hourly and incentive workers. The national wage stabilization program served to channel the pressure for increased pay which came from a tight labor market and rising prices into the demand for elimination of wage inequities.

Rate Reclassification Under NWLB Directive Order

A directive order of the National War Labor Board [2] finally began the successful efforts at over-all rate reclassification. On December 1–2, 1943, a National Wage and Policy Conference of the United Steelworkers of America had formulated a 22-point program, which included a demand for "equal pay for similar work throughout the industry." This formed the basis for an extended case before the War Labor Board.

The companies objected to any interplant or intercompany equalization of rates. As a counter-proposal, representing the attitude of most of the companies, U. S. Steel indicated that it favored the elimination of intraplant inequities through the application of an agreed-upon formula under which stabilized wage scales might be fixed for the duration of the basic labor contract.

In its directive order, the National War Labor Board ordered negotiations between the parties for the elimination of intraplant wage-rate inequities in a form which showed a careful assessment of the positions taken by each side and of their fruitless experience in the past. The directive applied to 86 "basic steel" companies and was later extended to 10 more.

[2] November 25, 1944.

The directive order provided for negotiations between each of the companies and the union for the over-all elimination of intraplant wage inequities with the stated objective of an orderly and stabilized rate structure that would remain fixed for the duration of the basic labor contract. The Board rejected elimination of geographical differentials as contrary to the national wage stabilization policy. Nor did the Board require the elimination of interplant differences, except that the parties were permitted, in their negotiations on internal rate structure, to take into account rate relationships existing in comparable plants in the industry.

The War Labor Board stipulated that "the maximum cost for any one company shall not exceed an amount equivalent to an average of 5 cents per hour for all its employees covered by the directive order." The order noted, furthermore, that cost would vary from company to company, depending on the extent of wage inequities and of prior efforts at correction. It was made clear, then, that the over-all inequities program could not generally be carried out without some appreciable out-of-pocket pay-roll expenditure, while at the same time a definite maximum limit brought the matter of money down to negotiable proportions.

As a second safeguard against deadlock, the Board provided that unresolved disputes were to be decided by a tripartite commission, with right of appeal to the Board. The Steel Commission was thus established on March 31, 1945, and upon abolition of the War Labor Board was later given power to make final and binding decisions.

While U. S. Steel and the union subsequently reached all of their inequity agreements by direct negotiation, the existence of the Commission as "backstop" may nevertheless have been a significant element in the successful outcome. There is the factor that in the settlement of a problem under the terms of an existing contract the assurance of arbitration as a terminal point avoids leaving the maintenance of the status quo as the only result of a deadlock.

The Board sought to facilitate negotiations by setting out basic guideposts or steps for the development of the program: (1) Simple and concise description of each job; (2) placement of the jobs into their proper relationships; (3) reduction of the job classifications to the smallest practical number by grouping jobs having substantially equivalent content; and (4) establishing wage rates for the classifications in accordance with the limitations prescribed. The Board further stipulated that reduction of an out-of-line wage-rate was not to reduce the wages of a present incumbent.

The intraplant inequities provisions of the directive order were subsequently incorporated—generally verbatim—into all, or practi-

cally all, of the contracts between the basic steel companies and the United Steelworkers.

Negotiations on this issue between U. S. Steel and the union began shortly after the signing of their basic contract on March 13, 1945. On management's side, negotiations were conducted by a small committee on behalf of Carnegie-Illinois, American Steel and Wire, National Tube, and Columbia Steel. The fifth steel-making subsidiary, the Tennessee Coal, Iron, and Railroad Co. (T. C. I.), for a period of time conducted its negotiations separately but later joined the Pittsburgh negotiations. The management committee was headed by R. Conrad Cooper, assistant vice president, industrial relations, of the United States Steel Corp. of Delaware.

On the union side was a small committee, appointed by the international union, with jurisdiction to supervise settlement of the inequities problem throughout the industry. This Wage Inequities Committee was led by Elmer Maloy, head of the union's contract department.

The final result was formalized through a series of five written agreements, each representing a successive stage of the classification program.

Agreements on Classification Program, 1945 and 1946

The first formal agreement, signed on October 23, 1945, covered (1) the form of job descriptions; (2) the procedure for joint review and approval of job descriptions and classifications; (3) the manual for job classification; and (4) principles governing the purposes of the standard hourly rates.

It is significant that from the outset the corporation sought complete participation by the union in the classification program. A good many management representatives in various industries have held the view that a job evaluation program can be properly objective only if its techniques are carried out unilaterally, without union collaboration. By way of contrast, U. S. Steel laid the greatest stress on joint development and acceptance of a manual for job classification, which in this case was viewed not merely as a temporary expedient for fixing an orderly wage structure, but was also valued as making the solution durable and definitive and as affording continuing usefulness in the development of rates for new or changed jobs.

It is equally significant that the union accepted complete participation. This cannot be attributed simply to the company's insistence. It represents a departure from the position which, from time to time, some other unions have been known to take.

To understand why the pattern in steel was different requires some appreciation of the factors which have prompted organized labor on many occasions to be wary of any inhibiting involvement in a formal

job evaluation. These union attitudes have generally been determined by one or more of the following objections: (1) A plan's appearance frequently seems calculated to mystify or intimidate the union out of bargaining; (2) the technical resources of the union may be inadequate; (3) any plan restricts elbow-room for job-by-job bargaining; (4) it is likely to erase job-by-job comparisons with rates external to the plant; (5) it tends to prevent the utilization of technological improvement as an occasion for seeking piece-meal job rate increases based on productivity; (6) it may translate into rates a dilution of skills; and (7) it may put some stigma on the union for denial of increases or for rate reductions whether they are actual or only in principle.

For the Steelworkers' Union these considerations were either inapplicable or were overbalanced by other factors.

The magnitude and seriousness of the problem were of prime significance. Inequities had been a real and continuing source of difficulty and not merely a rallying cry for wage increases that might just as easily have been taken in another form. Yet the creation of a defensible and lasting interrelation of rates covering thousands of jobs spread over more than 40 plants is a task that pretty much outruns the snap judgment of any one group of men and calls for a system, formula, or yardstick on the basis of which a whole organization can work and by which differences in individual judgments may be kept within relatively narrow and negotiable limits.

A typical local union may prefer elbow-room with which to accommodate its inevitable internal pressures; an international union dealing with U. S. Steel subsidiaries and endeavoring to set a pattern for the industry can hardly afford to give major consideration to local pressures. In other words, the level is high enough so that statesmanship, wholly aside from its own merits, also corresponds to good politics.

To a union in which negotiating on any point is likely to become an issue for internal politics, such a program may be well-nigh impossible. By contrast, negotiations for the Steelworkers' Union were conducted by a committee operating out of its international office, in which leadership is a rather definitely settled question.

The union's sense of security appears to have been basic to its commitment to this and the successive inequities agreements. It did not regard the proposed plan for job classification as necessarily a weapon against itself. If, on the contrary, the union had come to believe, during these negotiations, that the corporation was seeking to weaken it or to challenge its continued existence in April, when the basic contract was renewed, the inequities agreements would not have been possible.

Part of this sense of security was no doubt founded on a maintenance-of-membership clause. Experience indicates that American trade-unions, with perhaps rare exception, would consider commitments such as those involved in the successive U. S. Steel inequities agreements as entirely too hazardous, in the absence of some provision for union security. Before embarking on a program of this sort and particularly with regard to its bilateral development, the typical union would, if past experience is a guide, inevitably look to some sort of assurance, for a term, of stable membership, in order that it might have a chance to outlive without impairment of strength the many irritations involved in such an overhauling of wage rates.

What deserves emphasis here, however, is not so much any formal clause as the atmosphere of mutual relations which gave the union confidence in its future and in continued friendly working relations with the corporation.

It is notable that the union gave its formal commitment to the agreed-upon manual for job classification in advance of any agreement on cost, wage curve, or job slottings.

It is equally significant, however, that in so doing, the union was not buying a "pig-in-the-poke." In the first place, it was fortified, on its side, by considerable engineering talent thoroughly familiar with previous evaluation experience in steel and related industries. Second, and more important, is the fact that commitment to the manual was preceded by a long period of discussion in the course of which there developed a number of tentative understandings.

In the background of the inequities program there was the mutual feeling that increases were due to maintenance employees and workers in blast furnaces and coke works departments. The union negotiators were able to gather a rather dependable conception of what result would be obtained for machinists and maintenance craftsmen generally. A key consideration in itself, this helped to outline in advance the broad effects of the plan. Furthermore, before signing for the manual, the parties also negotiated the descriptions and classifications of 1,150 benchmark jobs embraced within 152 representative occupations. Since the union was given information as to their existing rates, further appraisal of the likely over-all results was possible.

As elements of agreement between the parties were developed, they were put in the form of tentative understandings. By this device it was possible to carry negotiations into a rather advanced stage before irrevocable commitments were made.

After tentative agreement on the job classification manual, on the form for job descriptions, and on bench-mark jobs, the parties proceeded to apply the classification procedure to the Gary Works of the Carnegie-Illinois Steel Corporation which was chosen because it

would, as the world's largest integrated mill, embrace the widest variety of operations. In short, negotiations were in progress for more than six months before the first written agreement (October 23, 1945) was signed and the union had therefore adequate opportunity to probe the results of the classification procedure before committing itself.

In their second agreement (April 15, 1946) the parties treated the special problem of classifying repair and maintenance jobs. This agreement was further developed, but not changed, by the agreement of January 13, 1947, and is therefore described in that connection on page 975.

The May 8, 1946, Agreement

In their third agreement (May 8, 1946), the parties fixed for each subsidiary a fund, to be used to correct inequities, equal to 3⅝ cents per employee-hour covered by the agreement. In other words, such wage curves were to be fixed as would result, when applied to the pay roll of the base period, in an average cost per company of 3⅝ cents per hour. The agreement defined the applicability of the standard hourly rates which were to be established and, by the same token, defined the items of pay-roll increases which were to be chargeable as costs against the funds. The agreement also contained a declaration of intention to develop within each of 12 geographical districts a set of wage rates that would be identical for all of the plants of the steel-producing subsidiaries. This objective was to be achieved to the "greatest degree practicable" within the overriding limitation of total company-wide cost.

It was further agreed that the wage scale for each plant was to begin with its "base common labor rate" for job class 1 and proceed upward, from job class to job class, in logical increments of cents per hour. This decision was significant in two respects. First, it pegged the bottom of each wage curve to the plant minimum, with whatever geographical character that might have. Secondly, by restricting the plant minimum rate to job class 1 and starting the increments with class 2, instead of with class 3 or 4, it began the wage curve high and introduced significant rate differentials among jobs previously included under "common labor" (see p. 980).

The May 8 agreement provided that the standard hourly rates, when agreed upon, were to be effective for (1) time workers, to displace existing rates that were lower, and (2) incentive workers, to displace existing minimum guaranties that were lower. The agreement also provided that existing rates for time workers that were out-of-line on the high side ("red circle rates") were to be reduced to the standard rates, except for current incumbents. However, a further

understanding between the parties suspended the application of this job-rate reduction for new placements for the duration of the then-current basic labor contract.

The May 8 agreement also embodied principles for the correction of inequitable incentive earnings. It barred any automatic effect on incentive plans. These principles were laid down: (1) the standard hourly rate would be the measure of a fair day's pay for a fair day's work; and (2) the equity of an incentive plan could be determined by whether it provided compensation above the standard hourly rate proportionate to performance beyond a fair day's work. It was agreed that management could review existing incentives so that the installation of new or revised incentive plans might be utilized in the elimination of out-of-line rates, subject to the right of the union to contest any change through the grievance procedure, including arbitration. Incumbents were in any event guaranteed against any cut in earnings for the duration of the then-current basic labor contract.

The principle was agreed upon that general wage changes were to be applicable to the standard hourly rates, rather than to the existing rates of incumbents.

The January 13, 1947, Agreement

When the parties began to fix wage scales, they soon found that adherence to the 3⅝-cent formula would not permit identical wage scales within the same geographical district. A bargain was therefore made (January 13, 1947) which went beyond that formula and proceeded to deal with interplant and intercompany differentials at the same time that it settled the issue of intraplant inequities. The new formula provided for starting the wage-scale in each plant with its existing minimum rate and in each case going upward from job class to job class by 3½-cent increments.

All but two of the corporation's steel plants had, at that time, plant minima of 96.5 cents. Consequently, under the formula, a uniform wage scale was written for all of "Big Steel" except for the American Steel and Wire plant in Duluth, which began 2½ cents lower, and the Tennessee Coal, Iron, and Railroad Co. in Birmingham, Ala., where the plant minimum was 79 cents or 17½ cents lower.

For the latter, the agreement of January 13 had results which differed somewhat from those in the North. Although wages on the lower end were 17½ cents below the North, on the upper end they were in a more favorable relationship. Adding 3½-cent increments to the 79-cent labor rate, therefore, meant a wage curve that afforded less benefit to the skilled employees than had resulted for such employees in the northern plants. Vigorous protest on this score from the

Birmingham District helped to effectuate further changes in the T. C. I. rates in the new contract negotiations then in progress.

The January 13 agreement meant an over-all corporation-wide cost of about 5.2 cents per man-hour in the bargaining unit. Retroactive payments (back to January 1944) were limited to 70 percent of their full computation so that they would total no more than 3⅝ cents an hour. There were, of course, wide differences in the cost incidence for particular plants.

It also perfected arrangements for the classification of maintenance workers, in which 21 trade or craft jobs were described and classified on the basis of the "scope of duties which a fully qualified journeyman may be called upon to perform in the plant." A "standard rate" was assigned to each. For workers not yet qualified to perform all of the duties embraced, two lower rate categories were provided: an "intermediate" rate, two job classes below standard, and a "starting" rate, two job classes below the intermediate.

Progression from one rate to the next was to be based on a review of the worker's qualifications upon completion of 1,040 hours of actual work. However, employees who successfully completed an apprenticeship training period were entitled to automatic progression through each of the three rates.

A schedule of automatic rate progressions for apprentices was also fixed, starting in each instance with the plant minimum rate and proceeding upward after each period of 1,040 hours of work by fixed increments varying with the craft.

The January 13 agreement provided for no immediate change in rates out-of-line above the standard wage scales. It was formulated in such a fashion, however, as to prepare the way for a new contract that would (1) in out-of-line hourly rates, actually reduce incumbents or at least new employees down to the standard rates; and (2) apply any general increases to the standard rates and not to the wages of incumbents in out-of-line jobs. This agreement continued the May 8 agreement provisions as to the review and adjustment of incentive plans.

Provisions of April 22, 1947, Agreement

The new contract signed on April 22, 1947, did not put some of these last-mentioned points into effect. The 12½-cent general increase was applied to the rates of incumbents as well as to the schedule of standard rates. Although part of their earnings are labeled "out-of-line differentials," job incumbents are to retain such differentials for the life of the contract.

Provisions were continued for review of existing incentive plans with a view to bringing them into line. Differing procedures are

however, provided for application under varying circumstances. The corporation may install a new incentive plan where (1) one has not existed before; (2) an old incentive plan has been wiped out by the new minimum guaranty; or (3) job circumstances have changed. In such cases the union may seek rectification through the grievance procedure. However, in other cases, that is, where action is undertaken solely for the purpose of bringing existing plans into line, the changes are to be made only by mutual agreement.

The new contract added 2½ cents to wipe out the differential at Duluth and it added 3 cents to the T. C. I. standard rates with the effect of narrowing the southern differential and reducing the number and size of "out-of-line differentials." The problem at T. C. I., and some northern plants as well, was also met by increasing the increment between job classes from 3½ to 4 cents. The standard hourly wage scales for all steel-making subsidiaries of U. S. Steel (except T. C. I.) are, therefore, as follows:

	Hourly rate		*Hourly rate*		*Hourly rate*
Job class 0–1	$1.09	Job class 11	$1.49	Job class 21	$1.89
Job class 2	1.13	Job class 12	1.53	Job class 22	1.93
Job class 3	1.17	Job class 13	1.57	Job class 23	1.97
Job class 4	1.21	Job class 14	1.61	Job class 24	2.01
Job class 5	1.25	Job class 15	1.65	Job class 25	2.05
Job class 6	1.29	Job class 16	1.69	Job class 26	2.09
Job class 7	1.33	Job class 17	1.73	Job class 27	2.13
Job class 8	1.37	Job class 18	1.77	Job class 28	2.17
Job class 9	1.41	Job class 19	1.81	Job class 29	2.21
Job class 10	1.45	Job class 20	1.85	Job class 30	2.25

Manual for Job Classification

The evaluation of jobs was made on the basis of a manual developed by representatives of a group of steel companies, including U. S. Steel, and with modifications as a result of union negotiation. It is now variously identified as the United States Steel manual, as the Cooperative Wage Study, or as "the Grant St. plan" in recognition of the advisory services performed by an inter-company group of engineers with offices in the Grant Building, Grant St., Pittsburgh.

It is a point evaluation system in which the points for each factor degree have been converted or scaled down so that they automatically total up to the numerical designation of the job class to which the occupation is to be assigned. When the weights for a job are added up and rounded out to the nearest whole number, the "labor grade" or job class is immediately known. This preconverted schedule of point values eliminated, as a separate matter for negotiation, the grouping of value points and it simplified understanding of the classification process.

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The manual rates the job content by 12 factors, with maximum weights as follows:

	Maximum weight of factor
Preemployment training	1.0
Employment training and experience	4.0
Mental skill	3.5
Manual skill	2.0
Responsibility for materials	10.0
Responsibility for tools and equipment	4.0
Responsibility for operations	6.5
Responsibility for the safety of others	2.0
Mental effort	2.5
Physical effort	2.5
Surroundings	3.0
Hazards	2.0

The degrees of each of the factors are defined, not so much in terms of single generalities, but rather in terms of a listing of typical job situations; these are further defined by illustrative benchmark jobs. (See table on next page for an example.)

The manual has several distinctive features, based on the contours of steel wage structure.

More than half of the total weight, an unusual proportion, is given to the factors of responsibility in contrast to skill, effort, or working conditions.

A distinctive factor is responsible for operations. A steel plant is typified by a highly interdependent series of processes, each of which is performed by a crew of men working at a big piece of equipment. The smooth flow of work through any particular piece of equipment is therefore a matter of the grestest significance, since the importance of its own productiveness is multiplied by its immediate impact on processes both before and after it. Faulty performance has a heavy result in terms of the widespread idleness or under-utilization of both equipment and men.

This responsibility is apt to center on the top working member of the crew, whose skill, knowledge, and judgment is typically the effective arbiter of productivity. Roller, heater, and first helper are illustrative. To meet this element, "responsibility for operations" was introduced. In final form, however, this factor gave to all of the crew members on such productive units some appreciable credit for operations. Under Code B, half a point is assigned, a change which frequently meant a difference of an entire job class. (See table.)

In contrast to many evaluation plans in metal fabrication, the U. S. Steel manual does not accommodate to the low rates which may attach to jobs typically performed by women. An evaluation plan will often provide weights which result in putting a light machine or

assembly job below male common labor. By contrast,, the U. S. Steel manual gives practically any machine operation a ranking substantially above most laborers. Tin-plate assorters are a good illustration. The job is performed by women who, in pre-union days, were paid less than common labor. Union negotiations brought them up to the plant minimum. The manual brought them up to job class 5.

United States Steel Corp. and United Steelworkers of America Manual for Job Classification of Production and Maintenance Jobs

RESPONSIBILITY FOR OPERATIONS

Consider the obligation imposed on the workman for utilizing capacity of equipment or process by maintenance of pace and machine speeds. This includes planning, instructing, and directing the work of others.
Consider the size of crew and teamwork required, the importance and size of equipment, and the degree of control exercised by the workman on the job.
Excess capacity and storage facilities between process operations are definite indicators for the lowering of the classfication in this factor.

Code	Job requirements	Benchmark jobs	Numerical classification
A	Little or no responsibility beyond use of own time. Work as member of a gang on simple work closely directed. Work on simple highly standardized jobs with little equipment or no other operations closely dependent.	Mill janitor Laborer Wire bundler Chipper—conditioning	Base.
B	Work as a member of the crew on a production unit, performing a simple routine work requiring some coordination with other members of the crew or with process to maintain production.	Charger—pack mill Feeder—open anneal Scrapman—billet mill	0.5.
C	Responsible for operating a small or individual process-unit where continuity of production is required. Perform tradesman's or shop maintenance work such as operations of complex machine tools. Handle material to and from processing units using mobile-powered equipment such as cranes, and tractors. Perform auxiliary or service operations when closely associated with production units or processes.	Sand mill operator Roll turner—shapes Bottom maker—soaking pits. Wharfman—coke plant Welder "A" Craneman—machine shop. Tractor operator—tier	1.0.
D	Operate a medium-sized producing unit not closely tied in with other operations; has several helpers. Responsible for performing assigned maintenance work on large producing units. Responsible for continuity of operations on a number of small producing units.	Millwright—blooming mill. Motor inspector—blooming mill. Die setter—threading machine. Wire drawer—machine	2.0.
E	Operate an important part of a major producing unit. Operate a medium-sized producing unit when closely associated with other operations. Responsible for continuity of operation for a number of medium-sized units.	Craneman—soaking pit Pusher operator—coke plant. Bloom shearman Speed operator—hot strip.	3.0.
F	Has high responsibility for complex work planning to meet production schedules. High responsibility for continuity of operations of a large producing unit.	First helper—open hearth.	4.0.
G	Sets pace and assumes joint responsibility with supervision for production of a large unit.	Welder—butt weld	5.0.
H	Has responsibility for maximum production from a major producing unit.	Roller—blooms	6.5.

The manual gives no unusual weight to physical effort or surroundings, but as might be expected, its definition of degrees in these factors

covers a far wider range of conditions than is contemplated in most evaluation systems. Most other plans, if applied to a steel plant, would hit against the extreme degrees with too great a frequency to provide proper discrimination between jobs.

While the classification plan was shaped to the peculiar requirements of the steel industry, it is not one which sought simply to match the major contours of wage structure in steel. Substantial changes were worked in the relationships of major occupational groups. They were largely deliberate and conformed to a general judgment of what basic inequities had existed.

It was understood from the outset that a classification plan ought to procure substantial increases for blast-furnance and coke-works employees. These operations are not commonly covered by incentives. Such incentive plans as had existed provided mild regular bonuses and in general were more in the nature of "back-door" increases than production stimulants. Rates in these departments started by being low. However, they had once been compensated for by a longer and steadier workweek. When, in the 1930's, the steel industry inaugurated a uniform workweek, the difference in hourly rates showed up in take-home pay. This imbalance was of course exaggerated during the war when incentive earnings moved upward while hourly workers' rates remained comparatively frozen.

Maintenance workers were affected by that same characteristic of wartime production, in addition to the fact that they no longer had employment any steadier than the production workers had enjoyed for several preceding years.

Common Labor Jobs

The inequities program had a major effect in introducing rate differentials among jobs previously lumped under "common labor." This had been a substantial category, paid for at or not far above the plant minimum rate. Application of the classification manual scattered the great bulk of this group from job class 1 to job class 5. Both parties intended to attain some of this result from the outset, but its full extent was, in considerable measure, due to the union's bargaining, which had one eye on increases to the low-paid workers and another eye on giving the entire wage curve a lift. While the manual dispersed "labor" over five job classes, the corporation sought to peg job classes 1 and 2 to the plant minimum rate, on the ground that that represented "common labor." However, the parties finally agreed to limit the plant minimum rate to job class 1. The result attached the minimum rate to jobs like janitor and gave appreciable increases to the vast bulk of "labor" jobs.

This completed a rather interesting cycle of historical developments by which "labor" jobs were virtually raised by their own bootstraps. In 1939 the United States Secretary of Labor made a minimum wage determination for the steel industry under the provisions of the Walsh-Healy Act. Plant minimum rates were fixed for four geographic areas on the basis of the common-labor rates prevailing in each. Except for tin-plate assorters, jobs paid less than common labor were found to be few and far between; the plant minima therefore brought them up to the common-labor rates.

This relationship was carried to higher levels by succeeding union agreements. With the inequities program, the plant minimum is left for a few lighter-than-average jobs and the bulk of "labor" is stepped up.

A basic effect of the program has been to establish, for the first time on any over-all basis, minimum hourly guaranties for tonnage workers that are really meaningful and orderly. In the typical instances, these had previously been little more than rudimentary in the steel industry. As a result of a War Labor Board directive, the 1942 contracts had established the principle of a minimum hourly guaranty for all incentive workers (computed on a daily basis). This was fixed at the plant minimum rate or at the occupational rate, if one had been established. A typical result was that a worker who consistently earned in the neighborhood of $2 an hour was guaranteed a minimum of 96.5 cents. Minimum guaranties now reflect the full value of the job's content on the basis of time-work performance.

Establishment of these occupational guaranties had the effect, in many cases, of wiping out existing incentives. This was true in two types of cases: (1) a plan which provided a mild but steady bonus as a sort of "back-door" wage increase; and (2) a more usual type of plan under which earnings were so low that they were overtaken or almost overtaken by the new minimum guaranty. Presumably management will move to restore effective incentives at a higher level only in those instances in which they may provide a genuine spur to production.

Key Occupational Rates

The inequities program ran head on into the problem of key occupational rates which, measured by job content alone, are adjudged out-of-line on the high side.

Bricklayers are the most obvious case. Almost any system of evaluation brings bricklayers roughly into line with other maintenance crafts. Yet the fact remains that in most labor markets their rates are higher, evidently because the restricted supply is so much more heavily dominated by the construction trades.

No serious attempt was made in these negotiations to fix a standard rate for bricklayers apart from that indicated by job-content evaluation. While labor-market conditions affecting particular skills are a legitimate influence on occupational wage rates, it was difficult to know where that process of accommodation would stop, once it was begun. Part of the problem was met, of course, by letting incumbents keep their out-of-line differentials. Nevertheless, the problem is apt to prove a continuing one because it is not merely a matter of tradition but also one of labor-market competition.

Locomotive engineers are illustrative of a related problem. Here it is not a question of labor-market competition but rather of comparison with well-established occupational rates in the railroad industry. This exemplifies the problem of job evaluation or classification when it must embrace the pattern of more than one industry.

Roll turners present another variant on the problem. This job is not subject to wage-rate pressures from outside the steel industry. The relatively high rate which it frequently obtains is more in the nature of an inherited tradition, now undermined by a shifting of some of its highest skills to roll designers.

Key production men, such as heaters and rollers, were also frequently adjudged out-of-line on the high side, except that the prevalence of incentives on these jobs reduced the practical problem. The characteristics which may explain these rates have already been discussed.

In the course of this article a number of factors have been described which contributed to the successful consummation of this distinctive program of job classification. Appraisal would not be complete without inclusion of two other elements that underlay achievement of the goal.

On both sides of the table negotiations were conducted by high-caliber, high-ranking personnel with authority to make tentative informal commitments that carried through and freedom to devote practically full time to the negotiations. By way of contrast, such negotiations are in other instances often conducted by men who have the time and technical capacity but are inhibited by a lack of authority or weight.

The general economic background likewise deserves consideration. A time of industrial prosperity and rising prices gave the corporation an ample margin with which to negotiate, particularly on a program which goes a long way toward setting a pattern of industry-wide equalization of rates.

Money and Real Weekly Earnings During Defense, War, and Reconversion Periods[1]

CHANGES in money and real weekly earnings since August 1939 are analyzed in this article in terms of the basic economic factors involved in each of four periods: (1) the defense period from August 1939 to Pearl Harbor, (2) the two-war period from December 1941 to April 1945, (3) the reconversion period from April 1945 to June 1946, and (4) the period from June 1946, when general decontrol of prices began, to February 1947, the latest date for which earnings information was available. At the time of writing, data were not available to indicate the effects of the "second round" wage increases negotiated in major manufacturing industries in March and April 1947. Consequently, neither these increases nor the 2 percent rise in living costs, which took place between February and March 1947, have been taken into account in this analysis.

The term "real weekly earnings" is used simply to mean the value of money weekly earnings as affected by changes in the purchasing power of money which are indicated by the consumers' price index of the Bureau of Labor Statistics. No attempt was made to measure such factors as tax and war-bond savings deductions, which undoubtedly had an important effect upon the "spendable earnings" of workers.[2] Neither was any attempt made to estimate the total earnings available to family groups upon which their living standards were based.[3] The "real earnings" figures present merely a rough indication of the changes in purchasing power of money earnings resulting from changes in living costs.

A further explanatory note is necessary. Changes in average weekly earnings may be the product of many different factors, such as changes in wage rates, number of hours worked, payment of premium rates for overtime, composition of the working force within an industry, and shifts in labor between industries.[4] The principal factors affecting weekly earnings are here discussed, but no attempt has been made to evaluate the effect of each factor.

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[1] Prepared in the Bureau's Labor Economics Staff by Milton Derber and Sidney Netreba.
[2] See Spendable Earnings of Factory Workers, 1941–43, Monthly Labor Review, March 1944.
[3] See Expenditures and Savings of City Families in 1944, Monthly Labor Review, January 1946.
[4] See Trends in Factory Wages, 1939–43, Monthly Labor Review, November 1943.

The Defense Period

ECONOMIC DEVELOPMENTS

On the eve of the European war, in August 1939, the American economy was still suffering from the aftermath of depression, despite a considerable degree of recovery from the low levels of 1938. The national income, at an annual rate of about 71 billion dollars, was lower than in 1937. Civilian employment was slightly less than 45 million, and unemployment was nearly 9 million. Factory workers averaged $23.77 a week; in cotton manufactures average weekly earnings were only $14.01, and in sawmills and logging camps they were only $18.76.

The outbreak of the war in Europe did not have immediate repercussions on the American economy. It was only after the fall of France in June 1940 that public appreciation of the seriousness of the emergency became widespread and defense plans got under way on a substantial scale. During 1941, economic conditions improved noticeably. Employment rose about 3.5 million, while unemployment fell from nearly 7 to under 4 million. Factory workers began to put in considerable amounts of overtime. The Federal Reserve Board production index jumped about 23 percent. National income in 1941 was 96.9 billion dollars, or 37 percent above 1939. Retail sales, prices, and profits all increased substantially under the general stimulus of the defense program.

Wage rates also responded strongly to the improvement in economic conditions in 1941. A general hourly increase of 10 cents, negotiated by the United Steel Workers of America and the U. S. Steel Corp. in April 1941, set a pattern which was followed by a large portion of manufacturing industry. As a result, straight-time average hourly earnings for factory workers as a whole rose in 1941 by over 13 percent, in contrast to an increase of only 3.6 percent during the preceding 2 years.

Although the defense program stimulated prosperity throughout the entire economy it exercised its most direct influence upon manufacturing, particularly durable-goods industries like steel, shipbuilding, electrical equipment, and machine tools. The durable-goods industries increased their employment by over 74 percent, and average weekly hours of work rose 9.8 percent from August 1939 to December 1941. Nondurable-goods industries also increased employment and hours, but only by 15.3 percent and 4.8 percent, respectively. In wholesale and retail trade, employment expanded by 14 percent, but average weekly hours declined by approximately 1.5 percent. A substantial part of the increase in factory hours represented overtime, which was compensated for at premium rates of pay.

MONEY EARNINGS

The factors of expanding employment, increased hours of work, and increased wage rates combined to raise weekly earnings during the defense period. Thus, between August 1939 and December 1941, durable-goods manufacturing industries led the way with a 38.7 percent increase in weekly earnings. Among the individual industries selected for analysis, increases ranged from 53.9 percent in machine tools to 14.5 percent in sawmills and logging camps. The comparatively low increase for the latter industry is explained primarily by the fact that weekly work hours are generally much lower in December than in August. The automobile industry also showed a comparatively small increase in weekly earnings.

In the nondurable-goods manufacturing group, the increase in average weekly earnings was about 24 percent, or less than two-thirds of the increase in durable goods. However, one of the nondurable industries covered, cotton manufactures, registered an increase of nearly 45 percent in average weekly earnings, a greater increase than occurred in any of the 6 durable-goods industries covered, except machine tools. The explanation is to be found chiefly in the low base from which the industry started in August 1939, and in the substantial increase (9.8 percent) which occurred in average weekly hours.[5]

In the bituminous-coal mining industry, which was directly affected by the increased activity of heavy manufacturing, weekly work hours rose by 15.3 percent and weekly earnings by 25.6 percent. Steam railroads and private building construction, which also shared in the defense program as well as in the general prosperity, increased weekly earnings by a little over a fifth. But other nonmanufacturing industries, for the most part, did not fare so well. Weekly earnings in wholesale trade increased by only 13 precent, those in retail trade by less than 1 percent. In public utilities, represented by electric light and power and street railways and busses, earnings increased approximately 10 percent.

REAL EARNINGS

The rise in general economic activity also had its effect upon the price level, and the dollar, in December 1941, did not have a value equal to its value in August 1939. During the first two-thirds of the defense period, the consumers' price index of the Bureau of Labor Statistics continued to maintain the stability which had characterized it since 1935. During 1941, however, as the economy began to approach full employment, the price index rose by nearly 10 percent.

[5] The significance of this factor may be illustrated by a single example: if weekly hours are increased from 40 to 44, or by 10 percent, and time and a half is paid for all hours in excess of 40, weekly earnings are increased by 15 percent.

This substantial decline in the value of the dollar offset some of the purchasing-power value of the wage increases.

Nevertheless, the increase in consumers' prices was considerably less than the increase in weekly earnings of factory workers; consequently, their real weekly earnings were much higher in December 1941 than in August 1939. This was particularly true of workers in machine tools, electrical equipment, cotton manufactures, and bituminous-coal mining. Oh the other hand, workers in the electric light and power industry, in street railways and busses, and in retail trade were actually worse off, and those in wholesale trade barely managed to hold their own. The variations in money and real earnings during the defense period are shown in tables 1 and 2.

The War Period—December 1941–April 1945

ECONOMIC DEVELOPMENTS

In the months following the attack on Pearl Harbor, economic activity rose to unprecedented levels. The Federal Reserve Board's index of industrial production rose from 176 in December 1941 to a peak of 247 in October and November 1943, and stood at 230 in April 1945. By the end of 1942, unemployment was approaching a minimum. Despite absorption into the labor market of large numbers of housewives, retired persons, and minors, the demands of production and of the armed services resulted in "tight" labor-market conditions throughout the war.

One important characteristic of the wartime labor market was the disproportionate demand by the high-wage durable-goods industries. Employment of production workers in these industries, which had increased over 74 percent in the defense period, jumped an additional 31.5 percent during the war years. The lower-wage nondurable manufacturing industries expanded very slightly above the level of employment in December 1941, while in trade establishments, employment declined 10.6 percent during the war.

The workweek was further extended in length to meet war production demands. In the durable-goods manufacturing industries average weekly hours rose from 42.5 in December 1941 to 46.5 in April 1945, with a peak of 47.1 in October 1944. Hours of the nondurable group averaged 39.6 in December 1941 and 43.2 in April 1945. The increases in hours in the selected nonmanufacturing industries were comparable to those in manufacturing. Most of the increased hours of work were compensable at premium rates of pay.

The tight labor situation combined with War Labor Board restrictions upon general wage-rate increases was also responsible for an unusual amount of upgrading, reclassification, and promotion of

workers. In piecework industries, long "runs" and the relaxation of standards under which piece rate were set and administered were common characteristics. Incentive systems also were used more extensively.

TABLE 1.—*Average weekly earnings and hours in selected industries, specified periods 1939–47*

Industry	Average money weekly earnings [1]					Average weekly hours [1]				
	Aug. 1939	Dec. 1941	Apr. 1945	June 1946	Feb. 1947	Aug. 1939	Dec. 1941	Apr. 1945	June 1946	Feb. 1947
All manufacturing	$23.77	$32.18	$47.12	$43.31	$47.28	38.1	41.1	45.1	40.0	40.4
Durable goods	26.63	36.93	52.90	46.32	49.72	38.7	42.5	46.5	39.8	40.4
Nondurable goods	21.77	26.93	38.80	40.28	44.69	37.8	39.6	43.2	40.2	40.4
Selected durable goods										
Blast furnaces, steel works, and rolling mills	30.26	38.84	56.32	46.98	50.67	35.7	39.2	47.0	36.0	38.5
Electrical equipment	28.19	39.41	51.91	46.15	49.04	39.2	44.9	46.7	39.3	39.7
Machine tools	31.72	48.82	59.53	53.86	55.99	42.6	53.8	50.2	42.2	42.1
Automobiles	35.25	42.41	58.28	49.32	54.33	37.7	37.4	45.5	36.6	38.8
Sawmills and logging camps	18.76	21.48	34.05	36.56	40.05	39.0	37.6	43.1	41.1	41.9
Furniture	20.90	26.61	38.81	39.31	44.03	39.7	41.8	44.2	41.4	42.0
Selected nondurable goods										
Cotton manufactures, except smallwares	14.01	20.27	27.70	31.75	37.56	36.6	40.2	42.3	39.5	40.5
Men's clothing	20.24	23.56	34.72	38.18	41.71	34.7	35.8	39.0	38.1	37.5
Boots and shoes	18.74	23.36	34.06	36.14	38.88	37.5	38.1	41.1	39.0	39.2
Slaughtering and meat packing	27.77	31.82	42.55	43.05	52.82	40.4	40.7	45.9	39.3	44.3
Newspapers and periodicals	36.75	42.61	50.60	56.08	63.34	35.7	37.2	38.7	37.9	38.8
Baking	25.49	28.84	38.87	41.42	45.79	41.1	41.5	45.5	43.9	43.3
Selected nonmanufacturing										
Bituminous coal	24.61	33.38	[2] 52.26	64.44	65.30	27.4	31.6	[2] 43.8	43.4	43.6
Electric light and power	34.40	37.73	50.18	52.07	55.37	40.0	40.3	43.6	40.9	41.6
Street railways and busses	33.17	36.94	48.65	52.46	56.80	46.0	46.8	51.0	49.3	48.1
Wholesale trade	29.82	33.69	44.51	47.88	50.93	41.9	41.3	43.2	41.4	40.8
Retail trade	21.39	21.59	27.69	32.39	35.27	43.1	42.3	39.9	40.9	40.1
Class I steam railroads	30.94	37.57	46.35	51.23	[3] 50.76	44.2	45.7	49.1	45.7	[3] 44.8
Construction, private building	30.94	37.73	54.42	55.23	58.97	33.5	35.4	40.0	38.2	36.9
Consumers' price index (1935-39=100) [4]	98.6	110.5	127.1	133.3	152.8	------	------	------	------	------

[1] For manufacturing industries and bituminous coal the data relate to production workers only. For the railroads the data, based upon ICC reports, refer to hourly rated employees, excluding switching and terminal companies. For the remaining industries the data relate to all employees except high-paid executives and officials.

Data for all industries other than railroads are based upon the regular hours and earnings data published currently by the Bureau's Divisions of Employment Statistics and Construction and Public Employment. February 1947 data are subject to revision.

[2] As of March 1945.

[3] As of December 1946.

[4] The President's Committee on the Cost of Living estimated that because of quality deterioration, disappearance of cheaper goods, and other factors, the consumers' price index understated the rise in retail prices of living essentials by from 3 to 4 points between January 1941 and September 1944 for large cities, and an additional ½ point for small cities. Later, the Stabilization Director (in December 1945) made an allowance of 4½ points for large cities and 5 points for large and small cities combined.

These adjustments have not been included by the Bureau in the published indexes. For a more detailed statement concerning these adjustments, see the Monthly Labor Review for March 1947 (p. 498, footnote) or the January 1947 report on the consumers' price index.

While longer working hours and shifts from lower-paid to higher-paid jobs in the war economy contributed largely to the rapid increases in weekly earnings, wage rates rose slowly, because of the limits imposed by the wage stabilization program. In the 21-month period prior to wage stabilization (i. e., January 1941 to October 1942),

wage rates as measured by the BLS urban wage-rate index for all manufacturing rose 17.0 percent. In the 30 months between October 1942 and April 1945, the index rose only 13.2 percent.

Although limiting the rise in wage rates, and thereby the rise in weekly earnings, for industry generally, the wage stabilization program enabled certain industries (the lower-paid or "substandard" and those using incentive plans) to effect greater increases in hourly earnings of their employees than could be effected by industries above the substandard level and those which paid their workers on an hourly basis.

MONEY EARNINGS

Between December 1941 and April 1945, average weekly earnings increased 43.2 percent in the durable-goods manufacturing industries and 44.1 percent in the nondurable group. In the defense period, as previously noted, the movement of weekly earnings in the nondurable-goods industries had lagged considerably, mainly because weekly hours had not increased as much as in the durable group. During the war period, this was partially offset by a somewhat greater increase in wage rates in the nondurable-goods industries. It may be noted that since the absolute level of average weekly earnings of the durable-goods industries was much higher than that of the nondurable, the dollars and cents differential during the war years was increased despite the slightly lower percentage increase.[6]

Among the durable-goods industries, certain noteworthy differences in the rise of weekly earnings occurred. For example, chiefly because of appreciable rises in weekly hours, in sawmills and logging camps and basic steel, earnings rose higher (58.5 and 45.0 percent, respectively) than the average for the group. Machine tools, on the other hand, had already attained such a high level of weekly hours by December 1941, that hours in April 1945 were slightly less than at the beginning of the war, and weekly earnings consequently rose only 21.9 percent.

Within the selected nondurable-goods manufacturing industries, weekly earnings in men's clothing and boots and shoes increased during the wartime period by more than 45 percent. Other industries, such as cotton manufactures and slaughtering and meat packing, did not do so well. In the cotton industry, hours rose only 5.2 percent between December 1941 and April 1945; in slaughtering and meat packing, they rose by nearly 13 percent, but the wage-rate increase was below average. The newspaper and periodicals industry, with comparatively

[6] In August 1939 the average weekly earnings of the durable-goods group were $4.86 higher than those of the nondurable group; in December 1941, the difference was $10.00; and in April 1945, it was $14.10. For reasons indicated later, the difference was only $5.03 in February 1947.

high wage rates, reported relatively small increases in hours and rates, so that weekly earnings increased only about 19 percent.

Except for bituminous-coal mining and private building construction, the selected nonmanufacturing industries, in the war period, as in the defense period, did not equal the gains in weekly earnings achieved by most manufacturing industries. The average increase for class I steam railroads was only 23.4 percent and that for retail trade was only 28.3 percent.

REAL EARNINGS

During the war, the Government made a strenuous and, on the whole, successful effort to prevent price inflation. The consumers' price index rose only 15 percent between December 1941 and April 1945; most of this rise occurred prior to April 1943.

TABLE 2.—*Percent change in money and real weekly earnings for selected industries,*[1] *specified periods 1939–47*

Industry	Percent change in earnings from—							
	August 1939 to December 1941		December 1941 to April 1945		April 1945 to June 1946		June 1946 to February 1947	
	Money	Real	Money	Real	Money	Real	Money	Real
All manufacturing	+35.4	+20.8	[2] +46.4	+27.3	−8.1	−12.4	+9.2	−4.7
Durable goods	+38.7	+23.7	+43.2	+24.5	−12.4	−16.5	+7.3	−6.4
Nondurable goods	+23.7	+10.3	+44.1	+25.3	+3.8	+1.0	+10.9	−3.2
Selected durable goods								
Blast furnaces, steel works, and rolling mills	+28.4	+14.5	+45.0	+26.1	−16.6	−20.5	+7.9	−5.8
Electrical equipment	+39.8	+24.7	+31.7	+14.5	−11.1	−15.3	+6.3	−7.2
Machine tools	+53.9	+37.3	+21.9	+6.0	−9.5	−13.7	+4.0	−9.2
Automobiles	+20.3	+7.3	+37.4	+19.5	−15.4	−19.4	+10.2	−3.8
Sawmills and logging camps	+14.5	+2.1	+58.5	+37.8	+7.4	+2.4	+9.5	−4.5
Furniture	+27.3	+13.6	+45.8	+26.8	+1.3	−3.4	+12.0	−2.3
Selected nondurable goods								
Cotton manufactures, except smallwares	+44.7	+29.1	+36.7	+18.9	+14.6	+9.2	+18.3	+3.2
Men's clothing	+16.4	+3.8	+47.4	+28.2	+10.0	+4.9	+9.2	−4.7
Boots and shoes	+24.7	+11.2	+45.8	+26.8	+6.1	+1.1	+7.6	−6.1
Slaughtering and meat packing	+14.6	+2.2	+33.7	+16.3	+1.2	−3.5	+22.7	+7.1
Newspapers and periodicals	+15.9	+3.4	+18.8	+3.3	+10.8	+5.6	+12.9	−1.5
Baking	+13.1	+.9	+34.8	+17.2	+6.6	+1.6	+10.6	−3.5
Selected nonmanufacturing								
Bituminous coal	+35.6	+21.0	[3] +56.6	[3] +36.2	[4] +23.3	[4] +17.5	+1.3	−11.6
Electric light and power	+9.7	−2.1	+33.0	+15.7	+3.8	−1.0	+6.3	−7.2
Street railways and busses	+11.4	−.6	+31.7	+14.5	+7.8	+2.8	+8.3	−5.5
Wholesale trade	+13.0	+.8	+32.1	+14.9	+7.6	+2.6	+6.4	−7.2
Retail trade	+0.9	−10.0	+28.3	+11.6	+17.0	+11.5	+8.9	−5.0
Class I steam railroads	+21.4	+8.3	+23.4	+7.3	+10.5	+5.3	[5] −0.9	[5] −12.0
Construction, private building	+21.9	+8.7	+44.2	+25.4	+1.5	−3.2	+6.8	−6.8
Percentage change, consumers' price index (1935–39=100) [6]	+12.1		+15.0		+4.9		+14.6	

[1] See table 1, footnote 1.
[2] The greater percentage rise for all manufacturing industries as compared with the durable and nondurable groups is arithmetically explained by the difference in the absolute levels in the base period and the shifts in the weights of the durable and nondurable groups during the war.
[3] December 1941 to March 1945. [4] March 1945 to June 1946. [5] December 1946. [6] See table 1, footnote 5.

As table 2 indicates, all the industries covered in this article experienced a greater rise in weekly earnings than the rise in the BLS consumers' price index, between December 1941 and April 1945. Even if allowance is made for the fact that the BLS index was not able to take into account such wartime phenomena as quality deterioration and the disappearance from the market of cheaper goods, it may be concluded that in most industries real weekly earnings increased during the war period.

Of the selected industries, basic steel, sawmills and logging camps, furniture, men's clothing, boots and shoes, bituminous coal, and private construction fared best, real earnings rising between 25 and 38 percent. In contrast, real earnings rose only 3.3 percent in the newspapers and periodicals industry, 6.0 percent in the machine tool industry, and 7.3 percent in the railroad industry.

In many instances an industry which did well in the war period had done less well in the defense period or vice versa. Machine tools was a noteworthy illustration of this fact. On the other hand, in bituminous coal real earnings increased significantly, but in newspapers and periodicals they lagged during both periods.

The Reconversion Period—April 1945 to June 1946

ECONOMIC DEVELOPMENTS

While full-scale reconversion of our economy from war to peace did not occur until after the surrender of Japan, reconversion may appropriately be said to have begun at the end of the European War in April 1945. In the one-war period between April and July 1945, the Federal Reserve Board index of production fell from 230 to 210, and the factory employment index from 164 to 152. After VJ-day, the declines, of course, were even sharper; the production index dropped to 162, the employment index to 127 by October. Before August 1945, factory hours averaged around 45 a week; after VJ-day they averaged first about 41 and subsequently about 40.

Nevertheless, the over-all effect of reconversion upon the economy was far less severe than had been anticipated. The absorption into the labor market of returning war veterans and workers no longer needed in war industries was accomplished with comparatively little friction. Despite a wave of industrial disputes throughout the first half of the year, the physical process of reconversion was practically completed by June 1946.

The principal cause of the disputes was the decline in weekly earnings that resulted from curtailing weekly hours of work in the war industries, particularly the durable-goods group. With the

cancellation of war orders, these industries found it unnecessary to continue a basic 48-hour week schedule with the payment of premium rates for work in excess of 40 hours. They therefore returned to the basic 40-hour-week schedule which was characteristic of prewar operations. Because of the loss of premium overtime pay, the decline in weekly earnings was considerably greater than the decline in hours.

This fall in weekly earnings, which occurred while living costs continued to rise slowly, was one of the chief reasons underlying the demand of unions for wage-rate increases. In the mass-production industries, unions demanded increases of 30 percent to make up for the decline in weekly earnings. These demands were resisted by important segments of industry and although many peaceful settlements of varying amounts were reached, many labor-management disputes arose over the wage issue. Following large-scale stoppages in oil, automobiles, steel, and other key industries, a wage-increase pattern of approximately 18.5 cents per hour was adopted for a major segment of the durable-goods industry. While workers in other manufacturing industries had not generally felt the impact of as great a decline in weekly hours as those in the durable-goods group, they, too, received substantial, although smaller, wage-rate increases. The situation of the nonmanufacturing industries was for the most part similar to that of the nondurable manufacturing group insofar as changes in hours were concerned, but the wage increases granted were, except in the coal and railroad industries, generally less extensive.

MONEY EARNINGS

The chief effects of the "first round" of wage increases upon weekly earnings were as follows:

(*a*) In those industries in which weekly work hours declined substantially from wartime levels, wage-rate increases were insufficient to make up the difference, and weekly earnings in June 1946 were considerably lower than in April 1945. For durable-goods industries as a group, the decline was over 12 percent; and for basic steel and automobiles, 16.6 and 15.4 percent, respectively. Notable exceptions were sawmills and logging camps and furniture manufacturing. Owing to the relatively slight decline in hours, the wage-rate increases in these industries increased net weekly earnings.

(*b*) In the nondurable manufacturing industries, in which hours generally declined by only a small amount, the wage increases were sufficiently great to raise June 1946 weekly earnings above those of April 1945. Thus, cotton manufactures had a 6.6-percent decline in hours, but a 14.6-percent increase in weekly earnings. Newspapers and periodicals likewise had a small decline (2.1 percent) in hours but

a 10.8-percent rise in earnings. For the entire nondurable-goods group, average weekly hours declined 6.9 percent while weekly earnings rose 3.8 percent.

(*c*) Most nonmanufacturing industries, as in the nondurable manufacturing group, experienced a small decline in hours in June 1946 as compared to April 1945, and an increase in weekly earnings. Retail trade reported a small increase in hours (2.5 percent) and a very substantial increase in earnings (17 percent). However, trade and utilities, as noted earlier, had lagged far behind the manufacturing industries during the war period.

REAL EARNINGS

During the period of reconversion, the price control program had remained generally intact, even though price ceilings were administered with increased liberality. As a result, the BLS consumers' price index increased but 4.9 percent between April 1945 and June 1946. Since this increase in living costs was generally less than the wage increases between VJ-day and June 1946, workers in those industries which experienced little or no reduction in their work schedule were generally able to maintain or increase their real weekly earnings. On the other hand, the workers in all the durable-goods industries covered in this article, with the exception of sawmills and logging camps, experienced declines in real earnings.

Increases in real earnings were greatest in bituminous coal (17.5 percent), retail trade (11.5 percent), and cotton manufactures (9.2 percent). In contrast, real earnings declined in basic steel, automobiles, electrical equipment, and machine tools by percentages ranging from 20.5 to 13.7. Increases or decreases in the other industries covered were comparatively small.

June 1946 to February 1947

ECONOMIC DEVELOPMENTS

During the second half of 1946 and in early 1947, business conditions were at capacity or near capacity levels in almost every sector of the economy. The industrial disputes and material shortages that had interfered with the progress of reconversion during the first half of 1946 were largely eliminated. The Federal Reserve Board production index (seasonally adjusted) rose from 170 to 189 between June 1946 and February 1947.

Employment in this period was stable, with a slight upward trend. Virtually all the interindustry shifts required by the change-over from war to peacetime production had already occurred. Hours worked were also stable. Factory hours averaged 40.0 a week in June and 40.4

in February. Hours in most nonmanufacturing industries declined slightly. There were, of course, variations in individual industries. In slaughtering and meat packing, for example, hours were 12.7 percent higher in February 1947 than in June 1946.

Wage rates continued to rise at an average of about 1 percent a month. These increases represented in part the last adjustments of the first postwar "round" of wage increases, and in part the early adjustments of a second round.

MONEY EARNINGS

As of February 1947, average weekly earnings of all the industries covered in this article were therefore higher than in June 1946. In both bituminous-coal mining and class I steam railroads, in which bargaining is on an industry-wide basis and in which no general wage-rate change had occurred since June 1946, the increase in weekly earnings to February 1947 was insignificant. The highest increases occurred in the nondurable-goods manufacturing group because important subdivisions of this group, including cotton manufactures, men's clothing, and slaughtering and meat packing, obtained second-round wage increases in the fall of 1946. The very large increase in weekly earnings in slaughtering and meat packing (22.7 percent) was due also to a substantial increase in hours worked.

Weekly earnings in the durable-goods manufacturing industries and most of the nonmanufacturing industries, except for coal and railroads, increased on the average, about 7 percent, because of increased hours as well as increased wage rates. The increase in weekly earnings in nonmanufacturing industries was generally the result of wage increases alone—since, except for electric light and power, these industries registered a slight decline in weekly hours worked.

REAL EARNINGS

While money earnings between June 1946 and February 1947 displayed an upward trend, the situation was completely different with respect to real earnings. In June 1946 the general decontrol of prices began. Within a period of 6 months (from June to December 1946) the BLS consumers' price index rose about 15 percent,[7] the steepest rise for such a period in the 34-year history of the index. The purchasing value of most of the wage gains achieved in the final months of 1945 and the first half of 1946 was thereby wiped out during the second half of the year. As of February 1947, only 2 of the 19 industries surveyed had maintained or improved their June 1946 position. In the two

[7] The index declined 0.1 percent from December 1946 to January 1947. This decline was only temporary as from February to March 1947 the index jumped about 2 percent.

MONEY AND REAL AVERAGE WEEKLY EARNINGS
SELECTED INDUSTRIES
MONEY
REAL (1935-39 DOLLARS)
ELECTRICAL EQUIPMENT
WHOLESALE TRADE
$60
50
40
30
20
10
0
AUG 1939
DEC 1941
APR 1945
JUNE 1946
FEB 1947
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ESTIMATES OF WORLD WAR II AND POSTWAR UNDERSTATEMENT BY THE CONSUMERS' PRICE INDEX WERE NOT INCLUDED. SEE MONTHLY LABOR REVIEW FOR MARCH 1947.

exceptional cases—cotton manufactures and slaughtering and meat packing—substantial wage-rate increases and a longer workweek resulted in a rise in weekly earnings greater than the increase in living costs. In all the other industries, the rise in cost of living exceeded the rise in weekly earnings. This was the primary factor which stimulated the second round of wage-rate increases that crystalized in the spring of 1947.

Comparison of February 1947 Weekly Earnings With Prior Levels

Weekly earnings in February 1947 are compared with the levels in prior periods in table 3. The table illustrates two major facts: (1) The relative standing of weekly earnings in any period (e. g., February 1947) will appear favorable or unfavorable, depending upon the level of the base period selected; and (2) regardless of which base is selected for comparison, the relative positions of individual industries will vary considerably.

Since August 1939 was a period characterized by mass unemployment, short workweeks, and lower wages, the February 1947 level, when compared with the former period, appears very substantial in real as well as money terms. Thus, despite an increase of 55 percent in the BLS consumers' price index between August 1939 and February 1947, real weekly earnings increased in all but one of the industries covered. The divergent experience of the individual industries is noteworthy, however. At one extreme, with increases of over 70 percent in real weekly earnings, are cotton manufactures and bituminous coal. At the other extreme, with a decline of 0.6 percent is the automobile industry.

The boom had materialized in the heavy-goods industries and in railroad transportation before December 1941. As a result, weekly money earnings in these industries increased less, proportionately, than in other industries, between December 1941 and February 1947. And in real terms, because of the substantial rise in the consumers' price index, earnings in such industries as basic steel actually declined. Other industries remained in a comparatively favorable position.

Using April 1945 as a basis of comparison with February 1947, the situation is quite different. Economic conditions in April 1945 were near the wartime peak when labor markets were tight, hours of work were unusually long, and upgrading was extensive. As a consequence, weekly earnings in some industries, notably the heavy-goods industries, were higher in April 1945 than in February 1947. This was not generally true of other industries. In the great majority of industries (14 out of the 19 covered), however, the increase in money earnings during the April 1945 to February 1947 period was less than the rise in living costs.

TABLE 3.—*Percent change in money and real weekly earnings between selected base dates and February 1947* [1]

Industry	Percent change in weekly money earnings from—				Percent change in real weekly earnings from—			
	Aug. 1939 to Feb. 1947	Dec. 1941 to Feb. 1947	Apr. 1945 to Feb. 1947	June 1946 to Feb. 1947	Aug. 1939 to Feb. 1947	Dec. 1941 to Feb. 1947	Apr. 1945 to Feb. 1947	June 1946 to Feb. 1947
All manufacturing	+98.9	+46.9	+0.3	+9.2	+28.3	+6.2	−16.6	−4.7
Durable goods	+86.7	+34.6	−6.0	+7.3	+20.5	−2.7	−21.8	−6.4
Nondurable goods	+105.3	+65.9	+15.2	+10.9	+32.5	+20.0	−4.2	−3.2
Selected durable goods								
Blast furnaces, steel works and rolling mills	+67.4	+30.5	−10.0	+7.9	+8.0	−5.6	−25.1	−5.8
Electrical equipment	+74.0	+24.4	−5.5	+6.3	+12.3	−10.1	−21.4	−7.2
Machine tools	+76.5	+14.7	−5.9	+4.0	+13.9	−17.1	−21.7	−9.2
Automobiles	+54.1	+28.1	−6.8	+10.2	−.6	−7.4	−22.5	−3.8
Sawmills and logging camps	+113.5	+86.5	+17.6	+9.5	+37.7	+34.9	−2.2	−4.5
Furniture	+110.7	+65.5	+13.5	+12.0	+35.9	+19.7	−5.6	−2.3
Selected nondurable goods								
Cotton manufactures, except smallwares	+168.1	+85.3	+35.6	+18.3	+73.0	+34.0	+12.8	+3.2
Men's clothing	+106.1	+77.0	+20.1	+9.2	+33.0	+28.0	−.1	−4.7
Boots and shoes	+107.5	+66.4	+14.2	+7.6	+33.9	+20.3	−5.0	−6.1
Slaughtering and meatpacking	+90.2	+66.0	+24.1	+22.7	+22.7	+20.0	+3.2	+7.1
Newspapers and periodicals	+72.4	+48.7	+25.2	+12.9	+11.2	+7.5	+4.2	−1.5
Baking	+79.6	+58.8	+17.8	+10.6	+15.9	+14.8	−2.0	−3.5
Selected nonmanufacturing								
Bituminous coal	+165.3	+95.6	[2] +25.0	+1.3	+71.2	+41.4	[2] +4.0	−11.6
Electric light and power	+61.0	+46.8	+10.3	+6.3	+3.9	+6.1	−8.2	−7.2
Street railways and busses	+71.2	+53.8	+16.8	+8.3	+10.5	+11.2	−2.8	−5.5
Wholesale trade	+70.8	+51.2	+14.4	+6.4	+10.2	+9.3	−4.8	−7.2
Retail trade	+64.9	+63.4	+27.4	+8.9	+6.4	+18.1	+6.0	−5.0
Class I steam railroads [3]	+64.1	+35.1	+9.5	−.9	+5.9	−2.3	−8.9	−13.5
Construction, private building	+90.6	+56.3	+8.4	+6.8	+23.0	+13.0	−9.8	−6.8

[1] See table 1, footnote 1.
[2] March 1945 to February 1947.
[3] From respective base dates to December 1946.

Economic conditions in June 1946 were probably more like those in February 1947 than in any of the other bases used. By June, the process of reconversion had been largely accomplished. Although employment was below wartime levels in both months, full employment levels prevailed. The workweek was stabilized at a little over 40 hours.

Money earnings in February were higher than in June 1946, chiefly because of late first-round and some early second-round wage increases. The railroad industry, with a decline of 0.9 percent and bituminous-coal mining with an increase of only 1.3 percent, lagged behind the others. But between June 1946 and February 1947 the greatest rise in history occurred in the BLS consumers' price index. As a result, with two exceptions, real earnings in the selected industries declined by from 1.5 to 13.5 percent.

A Medical Survey of the Bituminous-Coal Industry [1]

SERIOUS DEFICIENCIES in the lives of the miners and their families are sufficiently widespread to indicate a need for sweeping and immediate reforms, a medical survey of the bituminous-coal industry concludes. "Definitely low standards of health are readily apparent in certain places, but not in all areas where coal is mined," the survey reveals, and "provisions for health ranged from excellent, on a par with America's most progressive communities, to very poor."

That the housing and sanitary facilities in many individual mining camps are not far different from, and in some instances are superior to, those in the immediate vicinity of the camps should not justify their deficiencies. Nor should the general economic instability of the industry in the prewar years stand any longer as an excuse for failure to institute action bringing about much-needed improvements.

The issue is not one of raising or lowering the standard of the miners to the levels of white-collar workers or cotton pickers or any other vocational group. Rather, this study has been grounded on the premise that, all comparisons to one side, coal miners should share as much as possible in the dividends of good living sought by all Americans.

Under terms of the bituminous-coal mining agreement of May 29, 1946, between the Secretary of the Interior, acting as Coal Mines Administrator, and the president of the United Mine Workers of America, it was stipulated that—

The Coal Mines Administrator undertakes to have made a comprehensive survey and study of the hospital and medical facilities, medical treatment, sanitary, and housing conditions in the coal-mining areas. The purpose of this survey will be to determine the character and scope of improvements which should be made to provide the mine workers of the Nation with medical, housing, and sanitary facilities conforming to recognized American standards.

That agreement, which also provided for (*a*) a welfare and retirement fund and (*b*) a medical care and hospitalization fund, furnished the basic guidance for the medical survey. The report is unique in that it represents the first Nation-wide medical survey of an industry conducted under Government auspices. The report points out:

The survey was concerned primarily with the human beings in the coal microcosm. . . . It did not direct itself to the economics of the coal industry or to the technology of coal mining. These phases of the industry, however, were borne in mind, as the studies progressed for it was realized that the stability of the industry; the ownership, size, age, and solvency of individual operations; the methods of mining; and the incomes, steadiness of employment, and hours and conditions of work, as well as the working environment of the miners, all have an important bearing on the requirements for medical care and on the standards of

[1] Information is from A Medical Survey of the Bituminous-Coal Industry, Report of the Coal Mines Administrator, U. S. Department of the Interior, Washington, 1947 (340 pp.; illus.). The survey was directed, for the Coal Mines Administrator, by Rear Admiral Joel T. Boone (Medical Corps), U. S. Navy. It was carried out in the field by five teams of naval officers, each team including a medical officer in charge, an engineer familiar with housing, and a recreation and welfare specialist.

the medical facilities, housing, sanitation, and leisure-time activities in coal-mining communities. It was recognized also that the geographic settings and the strong influences of tradition had to be considered in arriving at appraisals.

Responsibility for the substandard conditions and for reform is to be shared, the report finds, jointly by labor and management. "Joint leadership is obligatory if industrial hygiene and industrial medicine are to be effectively applied, and if higher standards of living for the miner and his family are to be attained."

Appended to the body of the report are specific recommendations for improvement of the miners' well being. These recommendations are directed at both labor and management and in some cases at the public. The survey emphasized that a vital factor was the deep-rooted labor-management tension born of age-old conflicts between the two groups.

It was impossible for the medical survey teams to investigate the factors selected for study in each of the 8,000 or more bituminous-coal mines of the Nation or even the 2,350 coal mines that were in Government possession. A sample of 260 mines, distributed throughout the Nation, employing an estimated 71,850 employees with an annual rate of production of 97 million tons, was selected. Mines producing less than 50,000 tons annually were excluded.

Housing and Sanitation

Housing.—A relatively small fraction of the Nation's coal miners had comfortable, weatherproof dwellings, sanitary plumbing, adequate sewage disposal, and safe drinking water. Many of the same substandard living conditions that plagued the previous generation of coal miners were found to be still prevalent, despite sizable wage gains made by the workers. By comparison, the housing and sanitary facilities of the miners living outside of the company towns, especially those who lived in incorporated communities, were generally better than in company towns.

In view of the dusty conditions under which the miner works and of the grime common to all mining communities, the widespread lack of bathrooms was stated to be particularly serious. In some camps, miners' wash-and-change houses were available at the mines; but, paradoxically, dwellings with bathrooms were more common in those communities that had washhouse facilities. Bathrooms were observed in only 10 percent of the company-owned houses occupied by miners and their families. In the privately owned homes 31 percent had bathrooms with tubs or showers or both. These percentages compare with 40 percent of the nonfarm dwellings in the United States, reported by the 1940 census, with installed bathing facilities.

About 87 percent of the 805 company houses inspected were 20 to 50 years old. Of the 735 non-company-owned houses surveyed, 66 percent were within that age group.

In comparison with the 1940 census statistics that classified 11 percent of the rural nonfarm dwellings as overcrowded (occupancy rate of more than 1.5 persons per room), the survey revealed that about 25 percent of the company-owned miners' dwellings and 10 percent of those not company-owned were so classified.

Data on the state of repair indicate that greater interest was manifested in the upkeep of privately owned homes, whether owned or rented, than in those company-owned for rent to miners. About 65 percent of the company-owned houses were found to be inadequate in respect to one or more types of repair as contrasted to only 30 percent of the privately owned houses.

Wage agreements between the operators and the United Mine Workers of America stipulate that rentals for company-owned houses shall be established by supplemental agreements. The figures currently average about $2.50 per room per month. For a 6-room house the rental would be $15 or $16; rentals on homes not owned or controlled by the company average about $5 higher. In many instances, the rents do not depend on the condition of the houses.

The survey discloses that "the typical coal operator's lease places the miner in a most insecure position." These leases frequently read: "This agreement shall not operate or be construed to create the relations of landlord and tenant between the parties hereto under any circumstances whatsoever." The brief time which the miner is allowed for vacating his house following the termination of his employment, in addition to the unusual limitations upon domain, are factors to be considered when comparing rentals of company-owned and non-company-owned housing.

Specific recommendations include the improvement of existing housing and the construction of modern housing projects, elimination of inequitable provisions in rental leases, extension and facilitation of home ownership, and adoption of adequate minimum housing codes.

Sanitation and water supply.—The quantity and quality of water supplies for miners and their families vary considerably, depending largely on whether the miners live in urban communities where they generally have the benefits of municipal water distribution and purification systems or in company camps or rural areas where they must rely on individual supplies. The water supply in the far West is a far more serious problem than in the eastern and central mining regions. In the 260 communities surveyed, the water supplies of 120 mines were observed to be subject to pollution by industrial waste, mine water, or untreated sewage.

Integrated sewage systems existed in only 5 percent of the company towns but in more than a third of the incorporated communities that were surveyed. About 55 percent of the company-owned houses and 70 percent of those privately owned could be regarded as having satisfactorily met minimal requirements for adequacy of sewage disposal. In 60 percent of the communities surveyed, no type of organized garbage collection was available to the residents.

The investigation of wash-and-change houses showed that 42 percent of the larger mines have such facilities, but that there are wide variations in the way they are built and maintained. Requirements of State laws vary extensively.

Specific recommendations for improvement of sanitation include provision for a safe water supply, adequate sewage and garbage disposal, fire-prevention measures, and adequate wash-and-change houses.

Health and Medical Facilities

Public health services.—"Coal-mining communities are not," the survey revealed, "receiving a proportionate share of the funds being spent and of the public health services already available." This condition is explained as follows:

> Too many local health departments, particularly those staffed with part-time personnel, are unable to render services in the less-congested areas which need public health programs. Public health workers are reluctant to extend services and programs into company-owned communities. Coal miners have not demanded programs in public health and sanitation. Coal-mine operators have not encouraged and arranged for the establishment and maintenance of public health programs. Physicians associated with coal mines have not promoted public health programs, and they have been indifferent toward utilizing public health facilities and personnel.

Specific recommendations called for the extension of existing services, especially to the rural and isolated areas, for the development of competent local health departments with adequate programs for the collection and analysis of morbidity and mortality data, and for the practice of preventive medicine, including health education and control of tuberculosis.

Industrial medicine.—Seventy-two percent of the surveyed mines were inadequately prepared to render emergency medical care to the seriously injured. This deficiency is of particular importance in coal mining, in which working conditions are among the most hazardous and many serious traumatic injuries occur. Immediate treatment for shock is a vital factor in recovery. Plasma and other intravenous fluids, however, were observed at very few first-aid stations.

Medical records of the bituminous-coal industry do not disclose the extent or incidence of various occupational diseases. Particularly significant is the fact that "the absence of generally applied X-ray

examinations does not permit determination of the prevalence of silicosis and tuberculosis among miners."

Specific recommendations for raising the standards of industrial medicine include the expansion of research activities, improvement of industrial medical facilities, universal compulsory workmen's compensation, 100-percent first-aid training of miners, and better rehabilitation programs.

General medical facilities.—The survey reveals that approximately 70 percent of the coal miners and their dependents covered in the sample received general medical services through participation in medical prepayment plans. Such plans are now widely accepted by tradition and custom in the bituminous-coal mining areas. The following is an evaluation of the services canvassed:

> At certain larger coal-mining companies, including captive operations, the administration and operation of the plans appear to be outstanding in that good facilities for medical practice and adequate staffs of physicians are provided, and a wide range of services is available to the subscribers. At a majority of the mines, however, dispensaries and offices range from adequate to very poor; practitioners are overburdened; and there are evident tendencies in a number of places to give less consideration to the quality of medical care than to profits.
>
> One of the major shortcomings in administering the prepayment system in the coal fields is the exclusion of certain medical services generally included in other prepayment systems as benefits. The most outstanding of these is treatment for venereal diseases and the care of obstetrical cases.

Specific recommendations call for the consolidation of the prepayment plans into a broad prepayment system, based on sound actuarial principles, to provide comprehensive medical services in accordance with the fundamentals set forth in the body of the report, and the establishment of experimental prepayment dental services with a view to their eventual permanent adoption.

Hospital facilities.—Coal miners depend primarily, for hospital services, on institutions of small or medium size. Large hospitals are serving only 37 percent of the mines surveyed. The report discloses convincing evidence that three-fourths of the hospitals are inadequate with regard to one or more of the following: surgical rooms, delivery and labor rooms, nurseries, clinical laboratories, and X-ray facilities.

Specifically, the report recommends an increase in size and improvement in quality of hospital facilities; consolidation, whenever feasible, of multiple small hospitals into nonprofit associations or with larger institutions; expansion of out-patient departments; adoption of strict hospital construction codes; improvement in hospital administration; and promotion of medical-cost studies.

Hospitalization plans.—Prepayment plans for hospitalization were utilized to a slightly greater extent than similar plans for general medical services. At a majority of mines where the prepayment sys-

tem was in effect, plans for both hospitalization and general medical services were utilized. The report notes these characteristics:

> Although the lack of uniformity in the various hospitalization plans is striking, certain distinctive features are common to all. One common characteristic is their ambiguity; that is, the plans are effectuated by means of contracts, the wording of which is so vague that subscribers have no clear understanding of the services and benefits to which they are entitled. Nor, with the exception of some of the nonprofit plans, is any descriptive literature made available to subscribers to acquaint them with the scope and nature of their privileges.

Recreational Facilities and Programs

"In appraising health standards," the survey points out, "emotional well-being and physical well-being must be evaluated conjointly." Recreational facilities and the use of leisure time by the miner and his family were therefore included in the survey. The following summary indicates the nature of the findings on "off-the-job living":

> The inadequacy of organized recreation in the Nation's coal-mining areas clearly reflects public inability or unwillingness to appreciate its importance in good living and accord the problem due respect and consideration . . . The dividends of a sound recreation program are indirect. Its rewards are not measurable precisely in dollars and cents, but are undeniable; and the consequences of its absence are equally manifest.
>
> The survey indicates that recreational facilities and programs are (1) better and more readily available in the larger incorporated communities with diversified classes of people, such as factory workers, farmers, white-collar workers, and others in addition to miners; (2) poorer in those incorporated communities comprising primarily mining families and workers in professions, trades, and businesses dependent upon mining; and (3) poorest in coal camps, the company-owned, unincorporated communities made up almost solely of mining people. These facts point out that community organization is needed to provide the basic needs for recreational facilities and comprehensive leisure-time programs. . . .
>
> Limitations and handicaps, of course, hamper achievement of that goal. First, the economic instability of the industry itself gives the miners a feeling of insecurity and impermanence. They believe that their incomes are less steady and reliable than those of other industrial workers, and the frequency with which many small operations alternately open, close down, and reopen engenders a psychology of transience even in those who have been residing in one place for one or more scores of years.

Specific recommendations to enhance "off-the-job living" include the establishment of an industry-wide National Office of Recreation "whose functions shall be to promote, advise, and guide recreation activities at district and mine community levels." Also suggested are the establishment of district and local offices to coordinate recreational activities at community levels, expansion of State departments of education to include recreation divisions, and study of "the feasibility of changing present working schedules to permit miners to start and quit work at hours more in conformity with those observed in other industries so that they may lead a more normal life."

Occupational Mortality Experience of Insured Wage Earners

By Louis I. Dublin and Robert J. Vane, *of the Metropolitan Life Insurance Co.*[1]

The vitality of American wage earners increased progressively during the period 1911–39, according to the latest analysis of occupational mortality among industrial policyholders made by the Metropolitan Life Insurance Co.

The death rate among them declined sharply and their expectation of life was measurably lengthened. Moreover, diseases which 3 decades ago took a heavy toll among workers in the prime of life have, in many instances, been brought under control. The fall in the death rate from tuberculosis offers an outstanding example. Noteworthy also were the large reductions in the death rates from pneumonia and accidents.

Notwithstanding the considerable gains made, industrial policyholders continued to have a higher mortality and shorter longevity than did other workers. These differences suggest the effects of specific occupations, although other factors, both social and economic, also play an important part. The death rate for wage earners in the United States, as represented by these industrial policyholders, however, declined more rapidly than that of other employed persons during the period measured, and the gap between the two groups was gradually closing.[2]

Wide variations occurred in the percentage distribution of deaths from accidents and the principal diseases in various occupations. Some instances, in which the percentages recorded were very high, strongly suggested the effects of specific hazards. When occupations with high percentages for a selected cause of death were brought together, a common industrial hazard was sometimes found, as in the case of tuberculosis, pneumonia, and other nontuberculous respiratory diseases. The high percentages of deaths from tuberculosis recorded for men engaged in occupations exposed to silica dust clearly pointed to the effect of this dust. Heat, dust, and fumes are indicated as hazards associated with a high percentage of deaths from pneumonia and other respiratory diseases. In a considerable number of occupations which had high percentages of deaths from accidents, the hazards were easily recognizable.

This is the third and latest study made by the Metropolitan Life

[1] Dr. Dublin is second vice president and statistician of the company, and Mr. Vane, manager of occupational ratings.

[2] This tendency is reflected in the growing practice of life insurance companies to accept at standard premium rates many classes of wage earners who formerly were charged an extra premium because of the hazards of their occupation.

Insurance Co. of the occupational mortality experience among white male wage earners insured in its industrial department. The study covers the years 1937–39, which with the studies for 1922–24 and 1911–13,[3] afford a continuous record of a group of some 2 to 4 million industrial policyholders over a period of nearly three decades.

The group of wage earners covered by the series of studies live for the most part in cities and towns of the United States and Canada. Virtually every occupation is represented among them, but mainly they are engaged in urban wage-earning occupations. A much smaller proportion of agricultural workers, professional people, and executives is included in the group than is to be found in the entire working population. These white male weekly premium-paying industrial policyholders constitute a fairly homogeneous social and economic group, which may be conveniently described as the urban wage-earning population. Notwithstanding some important changes in the proportional representation of the individual occupations, caused by major national readjustments in industry over the years, the general occupational complexion of the group has not been greatly altered. The comparability of the data over the 29-year period has remained essentially undisturbed.

Mortality Rates and Causes of Death

DOWNWARD TREND IN DEATH RATES

Over the entire period 1911–39 the death rates of the adult male industrial policyholders of the Metropolitan Life Insurance Co. showed a downward trend.

TABLE 1.—*Death rates and percent decline, white male industrial policyholders*[1] *aged 15 years and over, by age group, 1912 to 1938*

Age group	Death rate (per 100,000)			Percent decline		
	1912	1923	1938	1912 to 1923	1923 to 1938	1912 to 1938
15 years and over	1,621.7	1,183.5	1,040.7	27.0	12.1	35.8
15–24 years	469.5	347.2	190.9	26.0	45.0	59.3
25–34 years	1,019.2	556.1	313.4	45.4	43.6	69.3
35–44 years	1,667.0	946.6	617.6	43.2	34.8	63.0
45–54 years	2,420.6	1,725.4	1,389.3	28.7	19.5	42.6
55–64 years	4,255.1	3,385.3	2,914.5	20.4	13.9	31.5
65 years and over	9,109.4	7,574.7	6,569.3	16.8	13.3	27.9

[1] Metropolitan Life Insurance Co., Industrial Department weekly premium-paying policies.

In 1912,[4] the rate at 15 years of age and over in this insured group was 1,621.7 per 100,000. By 1923 it had fallen to 1,183.5, and by

[3] See U. S. Bureau of Labor Statistics Bulletins No. 207 (1917) and No. 507 (1930): Causes of Death, by Occupation.

[4] The years 1912, 1923, and 1938 represent the midyears of the periods covered in the studies.

1938 to 1,040.7—a decrease from 1912 to 1938 of 35.8 percent (table 1). During this time, moreover, a substantial decline in the death rate occurred within every age group, especially the two groups from 25 to 44 years.

Because of this lowered mortality, the average life expectancy of an insured white male wage earner at age 20 rose 3½ years (from 42.1 to 45.7 years) during the period 1923 to 1939, and from 1912 to 1939 it rose 9 years.

PRINCIPAL CAUSES OF DEATH

In 1938, the causes of death showing the highest rates for the group 15 years of age and over were organic diseases of the heart (214.1 deaths per 100,000), cancer (128.9), and accidental or unspecified violence (94.6). These were followed in order by chronic nephritis, tuberculosis of the respiratory system, and influenza and pneumonia combined, with rates of about 65 per 100,000. In 1912, on the other hand, tuberculosis of the respiratory system, fifth in importance in 1938, led with a rate of 319.9. Organic diseases of the heart (203.9) was second in 1912, followed in order by chronic nephritis (164.9), and accidental or unspecified violence (140.6). Two other causes in that year each had death rates of more than 100 per 100,000: Influenza and pneumonia combined, and cerebral hemorrhage, paralysis, etc. Cancer, second in importance in 1938, was seventh in 1912. A striking change had taken place, which reflects the extraordinary advances in the fields of preventive medicine and public health in the intervening period.

Many of the more important causes of death, as might be inferred from the shifting in the order of importance just discussed, have shown sharp downward trends of mortality after 1912. The 1938 death rate from tuberculosis of the respiratory system in this insurance group was only about a fifth of the 1912 rate. The greatest decline, amounting to more than 80 percent, occurred among workers in the three age groups from 15 to 44 years. Even at ages over 45 the reduction was considerable. Owing to the fact that the classification of causes of death was fundamentally changed by the International Commission [5] in 1929, the death rates for heart disease, nephritis, and other cardiovascular-renal diseases in 1938 and in 1912 cannot be compared without reservation. Perhaps it would be best to consider this large group of causes as a unit, inasmuch as the changes consisted for the most part in transferring certain diseases from one classification to another within the group, leaving the total little affected by the change. The death rate for this group of causes as a whole for all

[5] International Commission for the Decennial Revision of the International Nomenclature of Diseases.

ages combined, in 1938, was 12.8 percent lower than in 1912. More significant, however, is the reduction by about a fourth in the rates at ages 45 to 64, when mortality from these diseases is quite high. The death rate from influenza and pneumonia combined declined by 53.2 percent, the greatest reduction taking place at ages 25 to 44; the rate from accidental or unspecified violence was a third lower in 1938 than in 1912.

Some of the lesser causes of death display a marked improvement. For example, the death rate for typhoid fever was 22.3 per 100,000 in 1912, but only 1.1 in 1938—a decline of 95.1 percent. The rate for chronic lead poisoning, a disease almost exclusively of occupational origin at the adult ages, was 0.2 in 1938, and 1.6 in 1912. Decreases in rates for cirrhosis of the liver, homicide, and suicide were 53.7, 45.1, and 30.2 percent, respectively.

A number of causes, on the other hand, did not share in the general downward trend of mortality between 1912 and 1938. Deaths from cancer increased in frequency, from 77.6 in 1912 to 128.9 in 1938; and those from automobile accidents were relatively 8 times as frequent in 1938 as in 1912. The death rate for diabetes increased by 19.6 percent, the rise, however, being confined to persons over 54 years of age.

In spite of the marked reduction in death rates, the group of adult males studied still had a higher mortality and a shorter life span than did other population groups having fewer wage earners.

COMPARISON OF MORTALITY RATES BY SEX

In 1938 and in 1923 also, except for ages 15–24, the death rate of male industrial policyholders exceeded that of wives and sisters, as represented by female industrial policyholders, at each age group analyzed (table 2).

TABLE 2.—*Comparison of death rates of white male and female industrial policyholders*[1] *aged 10 years and over, by age group, 1938*

Age group	Death rate (per 100,000) 1938		Percent: Male rate is of female rate	
	Males	Females	1938	1923
10–14 years	108.1	78.9	137.0	122.3
15–24 years	190.9	146.7	130.1	98.3
25–34 years	313.4	247.7	126.5	113.1
35–44 years	617.6	410.7	150.4	139.6
45–54 years	1,389.3	853.6	162.8	145.2
55–64 years	2,914.5	2,000.1	145.7	131.4
65 years and over	6,569.3	5,158.8	127.3	112.6

[1] Metropolitan Life Insurance Co., Industrial Department weekly premium-paying policies.

Obviously something besides occupational hazards are involved in the male excess, since in both periods the male death rate at ages 10 to 14, when relatively few boys are employed, was substantially higher than that for females. Actually, males have a higher death rate at all the childhood ages. It seems clear, then, that innate differences accounted for some of the male excess. Females had the least advantage late in life and at ages 15 to 34, when the dangers associated with childbirth are of considerable importance in the female mortality. Males were at the greatest disadvantage at ages 45 to 54; in 1938 the death rate for males was three-fifths greater than for females. At these ages, the dangers of childbearing being past for women, the effects of occupational exposure and of other factors on male mortality become more apparent from the comparison.

COMPARISON OF MORTALITY, INDUSTRIAL POLICYHOLDERS AND GENERAL POPULATION

The effects of occupation are also suggested in the higher death rates for white male industrial policyholders than for white males of the general population (urban and rural). The latter group includes relatively fewer industrial wage earners than does the insured group. A comparison of the death rates by ages for the two groups is shown in table 3.

TABLE 3.—*Comparison of death rates, white males aged 15 and over—industrial policy holders [1] and United States—by age group, 1938*

Age group	Death rate (per 100,000), 1938		Percent group 2 is of group 1	
	United States (1)	Metropolitan Life (2)	1938	1923 [2]
15 years and over	1,333.6	1,040.7	78.0	85.5
15–24 years	213.6	190.9	89.4	95.4
25–34 years	298.8	313.4	104.9	121.5
35–44 years	545.9	617.6	113.1	131.9
45–54 years	1,144.2	1,389.3	121.4	142.9
55–64 years	2,413.8	2,914.5	120.7	133.9
65 years and over	7,459.3	6,569.3	88.1	91.2

[1] Metropolitan Life Insurance Co., Industrial Department weekly premium-paying policies.
[2] U. S. Death-Registration States.

In the lowest age group—15 to 24—the death rate of the industrial policyholders in 1938 was actually below that for the white males of the general population; but thereafter the rate for the former was higher, the excess mortality rising from 4.9 percent at ages 25 to 34 to about 21 percent at 45 to 64. Very much the same situation prevailed in 1923 as in 1938; the death rate in 1923 for male industrial policyholders was lower than that for males of the Registration States at

ages 15 to 24 years, and higher at ages 25 to 64. The excess for the latter groups was much greater, however, ranging from 21.5 percent at ages 25 to 34 to 42.9 percent at ages 45 to 54.[6]

These findings reflect in some measure the effects of industrial exposure. Policyholders start out on their industrial careers in at least as good physical condition as other males, as shown by their relatively low mortality at ages 15 to 24. But soon the effect of conditions imposed by employment in industry and other factors become evident, and from about age 25 on, the insured have the progressively higher mortality.

The gap between the mortality in the two groups, however, is closing. Between 1912 and 1938, age for age considered, the death rate of insured white males has declined more rapidly than the rate of males in the general population (1911–38), the differences in the rate of decline in favor of the insured group ranging between 5 percent at ages 15 to 24 and 26 percent at ages 45 to 54. In 1912, owing to their heavier mortality, the expectation of life of insured white males aged 20 was about 6 years less than that of 20-year-old white males of the general population; by 1939 the difference was reduced to only 2 years.

COMPARISON OF MORTALITY, INDUSTRIAL AND ORDINARY POLICYHOLDERS

Some effects of occupation, direct or indirect, become more apparent when the mortality of white male industrial policyholders is compared with that of a group of male ordinary policyholders who were insured in the Metropolitan at standard rates and who included relatively few persons engaged in hazardous employments. White-collar workers—clerks, professional men, manufacturers, merchants, salesmen, and others—make up a far larger proportion of the workers insured under ordinary policies than of those under industrial policies.

Acceptability for insurance under ordinary policies is contingent upon the applicant's meeting somewhat higher standards of physical fitness than are applied to industrial policyholders. This of itself would result in a lower mortality among them. The effect on mortality of such selection, however, is limited chiefly to the first 5 insurance years. To make the mortality of the two groups more comparable, the death rates presented in this study for persons insured in the ordinary branch do not include the experience on policies issued in the last five calendar years, thus eliminating, for the most part, the effect of better medical selection.

In 1938, age for age considered, the mortality rates for white male industrial policyholders at ages 20 to 64 ran from 29 to 66 percent

[6] At all ages 15 years and over combined, and in the last age group—65 and over—the rates are not comparable because of the wide variations in the age distributions of the two groups in the two periods.

higher than those for male ordinary policyholders (table 4). In 1923, the excess industrial mortality was far greater, on the whole, than in 1938, ranging from 20 to 107 percent. The industrial male policyholders were at the greatest disadvantage in 1938 at ages 25 to 34, and in 1923 at ages 35 to 44.

TABLE 4.—*Comparison of death rates of white male industrial policyholders [1] with total male ordinary policyholders, by age group, 1938*

Age group	Death rate (per 100,000), 1938		Percent group 1 is of group 2	
	Industrial Dept.	Ordinary Dept.	1938	1923
	White males (1)	Total males [2] (2)		
20 years and over	1,267.1	882.1	143.6	186.9
20–24 years	225.3	174.2	129.3	119.9
25–34 years	313.4	189.1	165.7	186.7
35–44 years	617.6	381.9	161.7	207.1
45–54 years	1,389.3	876.9	158.4	192.4
55–64 years	2,914.5	2,143.4	136.0	164.0
65 years and over	6,569.3	5,220.1	125.8	120.7

[1] Metropolitan Life Insurance Co., Industrial Department weekly premium-paying policies.
[2] 1938 rates include issues of 1933 and earlier; 1923 rates, issues of 1918 and earlier.

A definite trend bringing the death rate of wage earners closer to that of other workers is again observed. Between 1912 and 1938 the decline in the death rates in the several age groups was from 8 to 23 percent sharper for white male industrial policyholders than for male ordinary policyholders, except at ages 15 to 24, when the decline for both groups was about the same. In 1912 the expectation of life of a white male industrial policyholder aged 20 was about 8 years less than that of a male ordinary policyholder; by 1939 the advantage of the ordinary policyholder at age 20 was only 4 years.

CAUSES OF DEATH IN THE TWO GROUPS

The causes of death which contribute most to the relatively higher total mortality of wage earners are indicated by a comparison of death rates for the principal causes of death among white male industrial and among male ordinary policyholders. This comparison is based on standardized death rates for ages 15 to 64. Tuberculosis of the respiratory system is much more prevalent among the first than among the second group. In 1938, the standardized death rate for this cause was about twice as high for industrial as for ordinary policyholders. Death rates for a number of other causes were much higher also among industrial policyholders, notably influenza and pneumonia (with an excess of 78 percent); accidents (60 percent);

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cardiovascular-renal diseases as a group (42 percent); cancer (28 percent); and diabetes (28 percent). There was little difference, however, between the rates for the two groups for appendicitis, angina pectoris, coronary artery disease, and suicide.

It is of interest to find that the decline in the rates for the principal causes of death was greater among industrial than among ordinary policyholders, and that in the few instances in which the rates showed a rising tendency, such as cancer, the increase was smaller for industrial than for ordinary policyholders. Unexpectedly, the rate of decline for respiratory tuberculosis, although greater than that for any other major cause of death, was not much more rapid for industrial than for ordinary policyholders. In 1938, standardized death rates at ages 15 to 64 for this disease for both groups were only about a fifth of what they were in 1912. Influenza and pneumonia as a combined cause declined 62 and 52 percent, respectively, among industrial and ordinary policyholders. Among industrial policyholders, the death rate from the combined cardiovascular-renal diseases was 27 percent less in 1938 than in 1912, but among ordinary policyholders it declined only slightly. Fatal accidents were down 40 percent among wage earners, but only 4 percent among ordinary policyholders.

Altogether, the health of American working men has improved greatly in the 29-year period under review.

Causes of Death by Occupation

In the foregoing, the mortality of the group of insured wage earners, as a whole, was discussed without regard to particular occupations. Data showing the trend in death rates for the various occupations in relation to certain causes of death would be of particular value in showing the occupations which shared in the general improvement and those which indicated need for further intensive effort. However, data on the number of insured in each occupation, were not available.[7] Therefore, the method of proportionate mortality again had to be used to find out for each occupation the part that any cause of death played in the total mortality, with due regard to age. Although not a substitute for the more significant death rates, this method has proved useful as a measure in bringing to light the high incidence

[7] Lack of information regarding the number of living policyholders in the different occupation groups is a serious handicap which precludes the possibility of computing occupational death rates. Undoubtedly such rates would be a much more accurate measure of the hazards to life in various occupations than is proportionate mortality.

The absence of occupational mortality statistics of this kind in the United States hinders the work of industrial hygienists and others interested in the health and welfare of workers. Such data, published decennially by the Registrar-General of England and Wales, have been of the utmost value to workers in the field of industrial health not only in those countries but in the United States as well. It is to be hoped that the National Office of Vital Statistics will seriously consider the possibility of compiling and tabulating similar data showing the mortality, by cause, of workers engaged in different occupations.

of certain diseases and in showing for a given occupation the causes most affected by conditions associated with the occupation.

The percentage distribution of deaths by cause and age was determined for the group as a whole and for each occupational classification. Table 5 presents the ratios existing between the proportionate representation of some of the more important causes of death in the total mortality of men aged 15 to 64 years who were engaged in each of 70 occupations, and the corresponding figure for those in all occupations. The percentages were standardized for age,[8] and the ratios between them give a standardized relative index of mortality.[9]

TABLE 5.—*Standardized relative index*[1] *of deaths, from selected causes, of white male industrial policyholders aged 15–64 years, 1937–39*

Occupation	Standardized relative index							
	Respiratory tuberculosis	Pneumonia (all forms)	Cancer (all forms)	Principal cardiovascular-renal diseases	Organic diseases of the heart	Nephritis acute and chronic	Cerebral hemorrhage, apoplexy and paralysis	Accidental or undefined violence
Agents and canvassers	72	58	90	117	111	111	100	88
Automobile factory operatives	120	145	88	85	79	-------	-------	98
Bakers	109	97	99	91	108	120	50	81
Barbers and hairdressers	112	66	85	117	120	93	124	45
Blacksmiths	67	137	103	93	81	120	113	138
Brick and stone masons	107	94	155	88	88	67	95	137
Buffers and polishers (metal)	-------	[2] 139	137	98	105	-------	-------	-------
Builders and building contractors	72	125	69	105	96	112	132	171
Building wreckers	-------	-------	-------	-------	-------	-------	-------	[2] 296
Butchers and meat cutters	124	131	90	96	89	112	90	81
Carpenters and cabinet makers	94	91	120	90	90	74	123	126
Chauffeurs	100	88	90	97	96	82	86	126
Chemical and explosives operatives	85	-------	126	97	90	106	92	132
Clerks, bookkeepers and office assistants	117	96	91	113	110	126	100	63
Coal miners (underground)	88	111	76	82	101	87	76	207
Anthracite	99	136	69	85	115	80	61	184
Bituminous	65	69	88	78	78	100	101	248
Compositors, printers, and pressmen	115	90	102	106	110	110	110	67
Cooks, hotel and restaurant	133	118	119	78	64	-------	-------	59
Coppersmiths and tinsmiths, etc.	99	138	123	95	98	-------	80	118
Cotton and woolen mill operatives	91	81	95	106	98	130	186	98
Cotton mill	89	86	75	113	103	156	227	96
Woolen mill	87	-------	139	92	89	75	97	105
Drinking establishments—proprietors and bartenders	110	115	95	81	90	88	63	71
Electricians	74	108	98	106	100	107	83	138

See footnotes at end of table.

[8] The total number of deaths for each occupation was assumed to be the same as for all occupied males and to be similarly distributed by 10-year age periods—ages 15 to 64 years. The proportionate distribution of the deaths among the several causes of death actually found for a given occupation was then applied to the assumed number of deaths in each age period, 15 to 64 years. The sum of the deaths thus calculated for a selected cause of death, divided by the total number of deaths from all causes among all occupied males, ages 15 to 64 years, gives the standardized percentage, or the proportion of deaths which would have been due to that cause of death if the total number of deaths from all causes at each age division had been the same for that occupation as for all occupied males.

The ratio between the standardized percentage for a given cause in a particular occupation and the corresponding percentage for all occupied males is the *standardized relative index* of mortality.

[9] As a rule, an index was calculated only when 20 deaths or more were recorded at ages 15 and over for a particular cause in a given occupation. An exception was made, however, in a few instances in which an occupation was of unusual interest when considering the mortality from some particular cause. These exceptions are marked on the table.

TABLE 5.—*Standardized relative index*[1] *of deaths, from selected causes, of white male industrial policyholders aged 15–64 years, 1937–39*—Continued

Occupation	Standardized relative index							
	Respiratory tuberculosis	Pneumonia (all forms)	Cancer (all forms)	Principal cardiovascular-renal diseases	Organic diseases of the heart	Nephritis acute and chronic	Cerebral hemorrhage, apoplexy and paralysis	Accidental or undefined violence
Electric light and power linemen								374
Farmers and farm laborers	96	91	93	94	93	98	123	125
Filling station proprietors and managers			63	117	101		138	97
Firemen (city)		58	100	125	111	131	129	112
Fishermen, seamen, and other marine workers	82	99	78	80	77	73	99	203
Furniture and woodworking factory operatives	77	135	130	94	94	128	86	103
Grinders (metal)	[2] 218			89				
Hotel and restaurant keepers	107	86	81	100	103	116	100	57
Hucksters, peddlers, and junk dealers	129	107	76	95	112	63	84	134
Iron and steel foundry operatives (not elsewhere classified)	162	188	94	79	84	94	77	101
Iron and steel mill operatives	76	133	103	92	88	62	96	117
Janitors and porters (excluding stores and steam railroads)	111	96	104	101	112	96	83	78
Laborers	124	111	104	89	94	97	91	112
Longshoremen and stevedores	135	120	89	72	80			145
Lumbermen and loggers				73				286
Machinists	91	105	109	103	88	111	134	88
Mechanics (excluding auto mechanics)	99	99	109	106	99	110	121	103
Merchants and storekeepers	67	88	99	115	101	137	119	63
Millwrights				85	74			[2] 227
Miners (underground, excluding coal miners)	284	[2] 153	82	60	90			159
Musicians	102			122	110			
Painters and varnishers—house, shop, etc	123	102	95	98	95	100	102	109
Plumbers, steamfitters and gas fitters	138	113	110	95	93	106	71	89
Policemen, marshals, sheriffs	71	54	87	109	102	102	73	121
Pottery operatives	330	[2] 146		89	116			
Quarrymen			124	73	88			252
Railway enginemen and trainmen	44	50	100	104	80	103	105	224
Roofers and slaters			112	95	87			217
Sandblasters	[2] 549							
Saw and planing mill operatives			108	89	79			154
Shoe factory operatives	95	110	113	99	96	118	72	80
Shoemakers (cobblers)	97	74	133	109	109	92	134	33
Stationary engineers and firemen	65	81	108	100	104	102	98	134
Engineers	51	70	118	94	90	101	103	149
Firemen	90	97	91	107	118	102	89	116
Stonecutters	396			57	50			
Store clerks and salesmen	106	85	98	111	109	103	95	77
Structural iron workers				53				271
Structural iron and bridge painters and steeplejacks								[2] 365
Tailors and other clothing workers	116	98	98	106	103	82	90	60
Teamsters and expressmen	156		90	82	78			160
Track and yard men (excluding laborers, steam railroads)	84	94	93	94	102	89	80	163
Track and yard laborers—steam railroads			100	86	73			176
Upholsterers	146		179	92	88			
Waiters	139	76	124	91	90			98
Watchmen and guards (excluding prison guards)	62	89	95	113	113	95	104	121
Welders		244	126	86	75			102
Window cleaners								[2] 199

[1] For explanation, see footnote 8, p. 1011.
[2] Based on less than 20 deaths.

The proportionate distribution of deaths by causes for many occupations differed greatly from that for all occupied males taken together, according to table 5. For a number of occupations, the percentage of deaths from one cause or another greatly exceeded the average, thus strongly indicating the possible effects of occupational exposure. Warranting attention was the high proportionate mortality from tuberculosis and pneumonia among iron and steel foundry operatives from cancer among brick and stone masons, from cerebral hemorrhage, apoplexy, and paralysis among cotton mill operatives, and from accidents among electric light and power linemen, structural iron workers and painters, building wreckers, and lumbermen and loggers.

Occupations listed according to their standardized relative indexes for a particular cause frequently fall into groups which reveal the effects of common occupational hazards. The facts regarding tuberculosis are outstanding and are of especial interest to industrial hygienists.

TUBERCULOSIS OF THE RESPIRATORY SYSTEM

Not only was there a decline in the death rate from tuberculosis, but it was also more marked than for most other causes of death. As a result, the relative importance of the disease as a cause of death was greatly diminished in most occupations. Thus, it was responsible for 6.4 percent of the deaths among all occupied white male industrial policyholders aged 15 and older in 1937–39, compared with 13.4 percent in 1922–24 and 20.5 percent in 1911–13. A striking fact brought out in the present study is the relatively small part tuberculosis played in the mortality of men engaged in many occupations in 1937–39 compared with 20 and 30 years ago. In only 10 of the 55 occupations for which the tuberculosis index is shown was this disease found to be responsible for more than 10 percent of all deaths, whereas in 1922–24 the proportion of deaths from this cause exceeded 10 percent in 29 of the 40 occupations listed, and in 1911–13, in 30 of the 32 occupations listed. A decided decline was recorded in the proportion of deaths from tuberculosis during the whole period for virtually every occupation for which data were available, thus indicating the widespread improvement in mortality from this condition.

A number of occupations, however, continued to show a high percentage of deaths from tuberculosis. Foremost were those characterized by exposure to silica dust. A small group of sandblasters with a standardized relative index of 549 had the highest percentage of deaths, followed by stonecutters (396), and underground miners (other than coal)—many of whom were exposed to high concentrations of silica dust—with an index of 284. Silica dust probably played some part,

also, in the high proportion of deaths from tuberculosis among pottery workers (330) and iron foundry workers (162). A high index (218) based, however, on a small number of deaths, was recorded for grinders. Relatively few grinders today use the sandstone wheel which in the past was responsible for the high incidence of silicosis and tuberculosis among them. Anthracite miners, many of whom are exposed to silica dust, appear in the list with an index of 99. It should be pointed out, however, that the percentage of deaths from tuberculosis for the anthracite miners was greatly affected by the high proportion of deaths from accidents among them. If allowance were made for this factor, the index would be well above 100. The influence of some adverse condition on the anthracite-miners' mortality from tuberculosis is suggested by the fact that the index for bituminous miners, who also showed a high death rate from accidents, was much lower.

Two unskilled occupations—longshoremen and laborers—were well up on the list, as were also teamsters and expressmen. Other occupations with high standardized relative indexes were upholsterers, waiters, plumbers and steamfitters, cooks, hucksters and peddlers, and butchers. Certain occupations which in the past have been associated with a high incidence of tuberculosis, including clerks, printers, and tailors and other clothing workers, were still found to have above-average percentages of deaths from this cause. Shoe-factory operatives, however, who in previous studies were found to have an excess mortality, had a lower-than-average proportion of deaths from tuberculosis in the present study. It is surprising to find certain skilled occupations with above-average relative indexes, which in previous studies had average or lower-than-average mortality, namely, painters, plumbers and steamfitters, and brick and stone masons.

The lowest percentage of deaths from tuberculosis occurred among railway enginemen and trainmen, watchmen and guards, stationary engineers, blacksmiths, and merchants and storekeepers. The mortality from respiratory tuberculosis was below average among farmers and farm laborers.

PNEUMONIA (ALL FORMS)

Pneumonia likewise is rapidly decreasing in relative importance as a cause of death among wage earners. It was responsible for 5.9 percent of all deaths among occupied adult male industrial policyholders in the years 1937–39, and for 7.7 percent in 1922–24. Occupation apparently has a definite influence on the chances of dying from pneumonia, as shown in the abnormally high proportion of deaths for a number of occupations.

Welders, with a standardized relative index of 244, had the highest percentage of deaths from pneumonia, followed by iron and steel foundry operatives (188). Three occupations having high mortality but with indexes based on comparatively small numbers of deaths, were underground miners, excluding coal miners (153), pottery operatives (146), and buffers and polishers of metal (139). A high index (145) was also recorded for automobile factory operatives. Other occupations with higher-than-average percentages of death for pneumonia were coppersmiths and tinsmiths, blacksmiths, anthracite-coal miners, furniture and other woodworking operatives, and iron and steel mill operatives.

Two other classes of respiratory disease—influenza and "other diseases of the respiratory system"—were included in the analysis of mortality, but the number of deaths from these causes was too few for most occupations to give significant percentages. It is of interest, however, that iron and steel foundry operatives were among the occupations with high standardized relative indexes for all three groups of respiratory diseases studied—pneumonia, influenza, and "other diseases of the respiratory system"; anthracite-coal miners and the broad group of laborers in various industries were also in this group. Bituminous miners had very high index numbers for influenza and other respiratory diseases, and iron and steel mill operatives, for pneumonia and influenza. A high index (527), for "other diseases of the respiratory system" recorded for anthracite miners is worthy of mention. Most of the miners' deaths classified as "other diseases of the respiratory system" were reported as caused by miners' asthma, anthracosis, and pneumoconiosis.

CANCER

Cancer has shown an increase in relative importance as a cause of death among insured wage earners. It accounted for 12.3 percent of all deaths among insured occupied males 15 years and over in the period 1937–39, for 8.2 percent in 1922–24, but for only 4.9 percent in 1911–13. Cancer, moreover, now causes more deaths than any other disease except heart disease.

No correlation of specific conditions and the incidence of cancer is apparent from the grouping of occupations with high standardized relative indexes for this disease. A few occupations returned indexes a third or more above the average and others had below-average indexes; but the facts available do not suggest a plausible explanation for their position in the list of occupations.

PRINCIPAL CARDIOVASCULAR-RENAL DISEASES

The current study made available standardized relative indexes for each of the principal cardiovascular-renal diseases: Organic diseases of the heart, diseases of the coronary arteries, acute and chronic nephritis, cerebral hemorrhage, apoplexy and paralysis, and arteriosclerosis. These diseases frequently occur in the same individual. Moreover, because of more accurate diagnosis of these conditions in recent years than formerly and of changes in procedures for classifying deaths by cause, the comparability between the mortality of these interrelated individual causes in various periods has been largely destroyed. Fortunately, transfers have taken place largely within the group itself so that good reasons exist for considering them together. The figures for the group as a whole were indicative of at least main trends. In 1938 they accounted for 44.0 percent of all deaths among white male industrial policyholders; in 1923, for 35.2 percent.

When the occupations were grouped according to their standardized relative indexes for the principal cardiovascular-renal diseases combined, only 10 of the 65 occupations studied were found to have an index of 110 or more, and the highest index recorded for any occupation—that of city fireman—was only 125. These results in themselves suggest that occupational hazards were not a major causative factor in this group of diseases; moreover, no tendency was shown for occupations to fall into groups according to specific hazards. In addition to firemen, the occupations with the highest percentages of deaths were musicians, agents and canvassers, barbers, and filling-station proprietors. There is no apparent significance in these higher figures.

Although organic diseases of the heart, nephritis, and cerebral hemorrhage, apoplexy, and paralysis are closely interrelated causes of death, there were notable differences in the occupational classes showing high and low proportionate mortality from each cause. But for none of these diseases did the grouping of occupations point definitely to the effects of common occupational hazards. Organic diseases of the heart accounted for 20.1 percent of the deaths in 1937–39, acute and chronic nephritis for 6.1 percent, and cerebral hemorrhage, apoplexy, and paralysis for 5.3 percent.

ACCIDENTAL AND UNDEFINED VIOLENCE

Accidents continued to play a major part in the mortality of wage earners, although the death rates among them from this cause declined sharply. Accidents were responsible for 10 percent of the deaths of occupied white male industrial policyholders 15 years and older in the period 1937–39, and for about the same proportion in 1922–24. The

decline in the accident death rate has, therefore, kept pace with the decline in the total death rate. Occupational hazards were an important element in the relatively high mortality from accidents among wage earners. Nearly a fourth of the accident fatalities among the insured group resulted from injuries sustained while at work. The effects of specific occupational hazards were clearly revealed in the high percentage of deaths from this cause recorded for a number of occupations in the present study.

In the listing of occupations according to their standardized index for accidents, electric light and power linemen show the highest percentage of deaths, with an index of 374. Almost three-fifths of the fatalities were caused by electric shock, and another fifth by accidental falls. More than four-fifths of all accidental deaths among these linemen were of occupational origin. Several occupations in the building trades were high on the list also. Structural iron painters, bridge painters, and steeplejacks, with an index of 365 (based on 14 deaths) were second only to power linemen; building wreckers, 296 (based on 14 deaths) were third; and structural iron workers, 271, fifth. Roofers and slaters, with an index of 217, ranked tenth. The index for brick and stone masons was 137, and for carpenters and cabinetmakers 126. Falls, the common hazard of these trades, were responsible for a large percentage of the accidental deaths. They accounted for more than three-fifths of the accidental deaths among roofers and slaters, nearly a half among structural-iron workers, almost two-fifths among brick and stone masons, and about a third among carpenters.

Lumbermen and loggers ranked fourth with an index of 286. More than half of their fatal accidents were of occupational origin. Quarrymen, sixth on the list, had an index of 252; half of their accidental deaths occurred while the men were at work. Underground bituminous-coal miners had an index of 248, and anthracite miners, 184. Injuries suffered in mine accidents caused about 70 percent of the accidental fatalities among each group of miners. Enginemen and trainmen on steam railroads had an index of 224, and track and yard laborers, 176. Railroad accidents were responsible for about two-thirds of the accidental deaths among the enginemen, for half among the trainmen, and for more than half among railroad track and yard men (excluding laborers), for whom the index was 163.

Well up on the list was the group of fishermen, oystermen, sailors, and marine workers, with an index of 203. Drownings accounted for 60 percent and falls for 7 percent of the accidental deaths among these men. Falls caused an even greater proportion—32 percent—of the accidental deaths among longshoremen and stevedores, for whom the index was 145. Drownings were responsible for 14 percent of the accident fatalities among them. Worthy of mention also are mill-

wrights, with an index of 227 (based on 18 deaths), and window cleaners, with an index of 199 (based on 17 deaths).

Among the manufacturing groups, saw and planing mill operatives have the highest index, 154. Injuries by machines caused a fourth of the accidental deaths in this group. Chemical and explosives operatives, with an index of 132, ranked second among these industries, about two-fifths of the accidental fatalities among them being occupational in origin.

As expected, the sedentary occupations were near the bottom of the list. Clerks, bookkeepers and office assistants, and merchants and storekeepers have an index of 63; tailors and other clothing workers show an index of 60.

The ranking of occupations by magnitude of their indexes for accidents shown in table 5 is, with minor exceptions, in fairly close agreement with what might be expected, from a knowledge of the hazards in the different occupations and from the known fatal accident rate in those industries for which such figures are available.

The period covered by the current study was marked by extraordinary advances in the medical sciences and public health and sanitation and by widespread improvement in the standard of living. Considerable expansion took place in the fields of industrial-accident prevention and industrial hygiene. Governmental and nonofficial agencies and others cooperated in the discovery of occupational hazards and the nature of injuries they cause and in working out means of prevention. All of these advances, as is well known, have profoundly affected the health of wage earners.

Much remains to be done, however, if the death rate of wage earners is to be lowered to approximately that of the non-wage-earning group. Toward this end, occupational-mortality studies such as this may prove helpful.[10]

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[10] Considerable information regarding the mortality from specific causes of death in various occupations, in addition to that shown in table 5, is available. Those having special interest in the facts regarding a particular occupation or cause of death are invited to write to the authors for whatever data they may have.

Extent of Collective Agreements in Seven European Countries[1]

AT THE OUTBREAK of World War II collective agreements between labor unions and employers' associations had gained wide acceptance as a method of regulating conditions of work and terms of employment in Great Britain, Belgium, Netherlands, the Scandinavian countries, and France. These agreements were sometimes negotiated on an industry-wide basis, a practice which has increased since 1939.

The governments of these countries had encouraged the negotiation of collective agreements during the interwar period, by assisting the formation of joint councils of employers and employees; by providing legal methods and procedures for enforcing agreements; and in some cases by giving the voluntary agreements greater force and wider coverage through legal extension. Decisions as to what standards an agreement should contain, and if indeed there should be an agreement, were left to the parties themselves.

The war brought no sharp break in the development of collective agreements in Great Britain and Sweden. In the other countries here reviewed, collective agreements were subjected to government controls as a result of the war years and the German occupation. Upon liberation, efforts were made to restore the prewar patterns, although the war and its economic and political aftermath produced some alterations.

By 1946, agreements had in general greater legal force, greater uniformity, and wider coverage than in 1939. At the same time, however, agreements lost some of their voluntary character and flexibility, at least for the time being. During the emergency period 1939–46, the extension of government controls to wage stabilization generally modified the contents of the agreements in each of the countries under review. This was, however, accompanied by increased consultation of the government with the central federations of employers and employees. Government control regarding the form, contents, and scope of collective agreements also increased, notably in France.

As the table indicates, information on the extent of collective agreements is fragmentary because in most of these countries there is no central agency, governmental or otherwise, with which collective agreements must be filed. For many years Norwegian legislation has required that collective agreements be filed with the government

[1] Prepared by Jean A. Flexner, Mary B. Cheney, and Helen I. Cowan of the Bureau's Staff on Foreign Labor Conditions.

Sources include laws and decrees, official reports of foreign governments, and reports of United States foreign service officers.

mediator who reports on their extent and coverage. In France, since 1936, copies of agreements have had to be filed with the Ministry of Labor, as well as with the local "probiviral" courts. In Great Britain the Ministry of Labor and in Sweden the Social Board obtain information concerning changes in wages and hours negotiated by employers' and workers' organizations through voluntary reporting and from reports of the governmental agencies connected with the settlement of industrial disputes. In Belgium and Denmark there does not appear to be any reporting system.

Trade-union membership is included in the table, because of the relationship between trade-union and collective-agreement coverage and the tendency to observe trade-union standards where membership is widespread.

Workers covered by collective agreements and trade-union membership, selected countries, 1925, 1939, and 1945 [1]

Country	Workers under collective agreements [2]			Trade-union membership		
	1925	1939	1945	1925	1939	1945
Belgium	[3]	[3]	[3]	727,000	987,000	872,000
Denmark	[4] 209,000	[3]	[3]	310,000	536,531	629,226
France	[5]	[6]	[3]	[7] 1,218,000	[7] 5,898,000	[7] 6,250,000
Netherlands	[4] 267,791	[8] 321,300	[3]	493,000	709,000	704,800
Norway	121,095	360,805	[3]	[9] 95,931	[9] 352,479	[9] 338,613
Sweden	451,592	1,047,771	[10] 1,063,000	470,000	1,008,000	[7] 1,303,000
United Kingdom	[3]	[11] 10,000,000	[11] 12,500,000	5,505,561	6,244,000	7,803,000

[1] Data have been compiled from official and other sources of the countries concerned, as far as possible. Secondary sources include International Labor Office, Collective Agreements (Studies and Reports, Series A, No. 39), Geneva, 1938, and Sweden, Swedish Yearbook, 1929 (p. 396) and 1945 (p. 401).

[2] Coverage varies; in some instances data relate to trade-union workers covered and in other instances to organized and unorganized workers affected by the agreements.

[3] Not available.

[4] Figure relates to 1928.

[5] Very few agreements were in effect at this time; see text, p. 1021.

[6] By 1939 the total number of collective agreements was 5,620.

[7] Estimate.

[8] Figure relates to 1941.

[9] Membership of the Norwegian Federation of Trade Unions only; practically all Norwegian unions are affiliated with this federation.

[10] Estimate for 1944.

[11] Estimate by Minister of Labor and National Service.

Extent of Industry-Wide Agreements

National or industry-wide agreements between unions and employers' associations have become common practice in many of these countries, and in some countries they are the predominant practice. Such agreements, however, are not necessarily uniform for the entire industry. Hours, vacations, methods of training apprentices, grievance procedures, employment termination, and other procedural matters may be standardized for the industry throughout the country, while local or district variations in wage rates, and sometimes in conditions of work, are often permitted or incorporated into the industry-wide agreement.

During the interwar period, the governments of Great Britain, France, Belgium, and the Netherlands encouraged and assisted collective bargaining at both the local and industry-wide level by the passage of legislation designed to promote collective bargaining or extend the area covered by a collective agreement (see p. 1022 for further details on extension of agreements).

In Belgium during the interwar period collective agreements were concluded by joint industrial councils, voluntarily organized but with members appointed by the Government. Regional councils and regional agreements in the various industries were more common until after World War II, although national councils were set up for the iron and steel, coal mining, construction, and baking industries. Legislation of June 1945 specifically authorized the development of joint industrial councils,[2] and more than 40 industry-wide councils were instituted by Government decree during 1946. The creation of national joint industrial councils for mines, quarries, agriculture, forestry, hotels and restaurants; for financial, commercial, and insurance institutions; and for the principal manufacturing industries, may result in more national agreements.

Most French agreements prior to 1936 were local, and even between 1936 and 1939 comparatively few national (industry-wide) agreements were negotiated. Provision for a radical change in this situation is made under the 1946 collective-agreements law discussed on pages 1023–1024.

In 1933 the Netherlands authorized by law the establishment of joint industrial councils, on either a national or a regional basis, in order to encourage collective bargaining. A trend toward consolidation of contracts was evident before the war, in that the number of collective agreements declined while the number of workers covered increased sharply. By 1941 national agreements were found in the diamond-cutting, printing and paper, construction, leather, oilcloth and rubber, coal, metal, shipbuilding, food-processing and related industries. Since liberation, agreements on an industry-wide basis have frequently been negotiated between union councils, representing the Catholic, Protestant, and Socialist unions in an industry on the one hand, and the voluntary associations of employers on the other. The majority of agreements, when approved by the wage stabilization authority of the Government, were being extended in 1946 to all plants in the industry, thus considerably broadening the coverage of agreements.

Over a long period, collective agreements in British industries have been increasingly negotiated on a nation-wide basis. Such agreements have gradually tended to supersede district or local negotiations,

[2] See Monthly Labor Review, December 1945 (pp. 1169–1170).

but have often incorporated different terms for different districts, particularly in regard to wage scales. National agreements, with national wage scales, are now negotiated in the flour milling, pottery, and boot and shoe industries; national agreements, with local or district wage differentials, have been concluded in the machinery-fabricating industry (engineering), in shipbuilding, railways, and the building trades. District agreements are still used in the cotton textile,[3] iron and steel, and printing industries, with national agreements regulating some nonwage questions. National versus district wage scales were a vital issue in the coal industry during the interwar period. In 1942, as a wartime concession to the miners, the Government instituted a guaranteed national weekly minimum, but this only partially satisfied the demands of the miners for standardization. Since British mines were nationalized in 1946, the National Coal Board and the Government are faced with the issue.

In Sweden, industry-wide agreements are concluded on an annual or biennial basis between federations of employers and labor unions in approximately 30 branches of industry. Textiles, tanning, shoes, clothing, printing, paper and pulp, sawmills, flour mills, and several other food-processing industries, and the building materials industry, are included in this group, as well as steamship operation, railways, hotels and restaurants. Mining and dock work appear to be covered by two regional agreements. The national agreements generally contain provisions on cost-of-living wage adjustment, hours, hiring and termination of employment practices, vacations, sick leave, methods of adjusting disputes, and wage scales. The latter, however, usually vary according to local differences in living costs as measured by the Royal Social Board.

In Norway and Denmark, the situation with respect to industry-wide agreements is similar to that in Sweden. Government mediators in both countries may consolidate cases and may present proposals covering several disputes, for collective acceptance or rejection. This practice tends to widen the scope of the resulting agreements.

Legal Extension of Agreements

In some countries a collective agreement may be extended by governmental action to nonsignatory employers and their employees in the same trade or industry. The agreement may be extended in whole or in part on a local, regional, or industry-wide basis. Governmental extension, however, gives a legally binding character to an agreement, making its enforcement similar to that of a law or regulation.

France and the Netherlands alone of the countries here included have authorized general extensions of collective agreements—France

[3] In the weaving section, however, a national agreement was reached on piece prices. See p. 1023.

by the law of 1936, the Netherlands by a law of 1937. France, the Netherlands, and Sweden provided that the terms of a collective agreement should apply to the nonunion employees of employers who were bound by the agreement. The Netherlands law of 1937 also permitted the Minister of Social Affairs to declare certain provisions of a collective agreement inoperative if, in the public interest, this was found necessary. He was precluded from extending certain types of agreement clauses relating to preferential hiring of union members or to price-fixing. On extensions, the Minister in the Netherlands was required to consult with a national Labor Council, and in France, with a competent industrial division of the National Economic Council.

During the interwar period, enabling bills for the general extension of agreements were introduced and debated in the Parliaments of Great Britain and Belgium, but were not passed. A limited type of extension, however, was adopted. A Belgian law of 1936 provided for industry-wide extension of shorter workweeks negotiated by joint industrial councils. A British law of 1934 gives industry-wide statutory effect to the agreement in the cotton-weaving industry.

As a wartime measure, Great Britain, after 1940, required all employers to observe such terms and conditions of employment as had been established by negotiation or by arbitration proceedings between representative organizations of employers and trade-unions for the industry and the district. This provision was incorporated into Part III of the 1945 Wages Council Act and is to remain in effect until December 31, 1950.[4] Disputes concerning interpretation of this provision must be referred to the Minister of Labor and National Service who then refers them to the Industrial Court or to the National Arbitration Tribunal for decision.

Under the French law on collective agreements (December 1946), an agreement between the most representative associations of employers and of employees [5] becomes binding on the whole industry. Such agreements are enforceable by Government inspectors, as soon as they have been approved by the Minister of Labor and Social Security. He may approve or disapprove the agreement, in whole or in part, upon the advice of a tripartite national commission. He may also write the terms of a provisional agreement, under certain circumstances, after consultation with the employer and employee groups concerned.

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[4] See Monthly Labor Review, August 1946 (pp. 225–226) and July 1945 (p. 120).

[5] Under the 1936 law the representative character of an association had to be determined when an agreement was to be extended. Under the 1946 law the representative character must be determined for purposes of negotiating the agreement. Under both laws the determination is made by the Minister. Formerly a relatively small craft or district organization could be recognized as "representative." Under the 1946 law and regulations of March 1947, it has become almost impossible for such organizations to qualify and the CGT unions tend to be favored as the exclusive representative. The Confederation of Christian Trade Unions has been resisting this definition.

The law requires the negotiation of industry-wide agreements first, before regional or local agreements are initiated. During an undefined transitional period the Minister is instructed to summon national joint committees, including delegates of the most representative organizations of employers and employees, to negotiate such agreements. According to the May 1947 issue of the Revue Française du Travail, it appears that agreements of more limited scope are being permitted, pending the adoption of national agreements.

The law (like the 1936 law) specifies two groups of subjects—mandatory and optional—to be covered by the agreements: (1) The mandatory group includes provisions regarding hiring and firing, apprenticeship, training, termination of employment, guaranty of the right to organize ("trade-union freedom") and wages. (2) Optional subjects that may be included in an agreement are regulations on incentive and seniority bonuses, piece rates, and paid leave, and provisions in regard to shop stewards and works committees (institutions already established by law). Until further notice, wage rates, however, continue to be fixed by Government decree, rather than by bargaining, and these must be incorporated into the agreement. The Government wage decrees issued thus far fix minimum and maximum rates for each occupation.

Basic Agreements of Central Federations

Basic agreements, equivalent to general codes of industrial relations, have been negotiated between the central federations of employers' associations and unions in Scandinavia. These agreements, while not actually binding upon the affiliated unions and employers' associations until adopted by them, have in practice been accepted and incorporated into the collective agreements in the several industries.

Since 1938, successive Swedish basic agreements have regulated dismissals, secondary boycotts, safety, apprenticeship, and in 1946 the establishment and activities of works councils in firms employing over 25 workers. The Norwegian agreements of the middle thirties regulated the form of wage payment, hours, vacations, safety, the election and status of shop stewards, referendum votes on agreements and, in 1945, the setting up of joint production committees. A Danish basic agreement of 1898 guaranteed the right to organize and established standards for the settlement of disputes; several subsequent basic agreements have further developed these principles, some of which have since been enacted into law.

In addition to the negotiation of nation-wide basic agreements, the central federations of these countries have also exercised guidance and control over the negotiation of major industry agreements. Dur-

ing the war period, wage stabilization and adjustment of wages in accordance with the cost-of-living index was effected by basic agreements between the central federations. Norway and Denmark supplemented the agreements by Government wage controls.

The central federations of management and labor have in general played an important role, particularly during the war and postwar periods, in advising the governments of the countries covered in this report on social, economic, and labor policies. In Great Britain, a National Joint Advisory Council, half of its members nominated by the British Employers' Confederation and half by the Trades Union Congress, was created in October 1939, to advise the government on "all matters in which employers and workers have a common interest." It was, however, specified that the Council should not encroach on the jurisdiction of organizations concerned with particular industries. Collective bargaining proceeds on an industry-wide basis as before.

The French Government has set up a Commission on Collective Agreements, which includes representatives of the leading trade-union and employer federations along with government officials; it is to advise the Government on matters of policy relating to wages, prices, and production, and the Minister of Labor on the approving or disapproving of collective agreements as required by the 1946 law.

In the Netherlands a permanent joint body, the Labor Foundation, was planned in secret during the occupation and set up after liberation by 14 associations of employers and trade-unions, including the Socialist, Catholic, and Protestant union federations. Its objectives include promoting collaboration between employers and employees and their organizations and promoting the regulation of wages, hours, holidays, engagements and dismissals, grievance procedures, etc., for industry at large and for specific branches. It also advises the government upon economic, social, and labor policies including wage-price relationships. The College of Mediators (the wage-stabilization authority) is required to consult the Labor Foundation on any decisions involving wages. The Labor Foundation and the College of Government Mediators are reported to have agreed that agreements negotiated in future shall contain a uniform minimum paid vacation clause.

The Netherlands Labor Foundation has provided machinery for the settlement of industrial disputes which supplements and in many cases eliminates recourse to government mediators. Whenever negotiations over a contract break down, the council of unions and the council of employer associations proffer assistance; if they fail to reach an adjustment, the Wages Committee of the Labor Foundation may intervene before the case goes to the College of Mediators.

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Collective Agreements in Nationalized Industries

The principle of collective agreements has been preserved in nationalized industries of France and Great Britain. In both countries, the coal mines were nationalized in 1946. In France, a Miners' Charter, covering most of the conditions usually stipulated in a collective agreement, was promulgated by decree in June 1946 after consultation with the most representative trade-unions of the industry. On the points covered, the decree takes the place of a collective agreement.

In Great Britain, the National Coal Board, which manages the nationalized mines and ancillary enterprises, has two trade-union members, one of whom, a former secretary of the mine workers' union, handles negotiations with the union. The Coal Board in December 1946 entered into an agreement with the union, continuing in effect the 1943 national conciliation scheme,[6] as well as existing agreements on wages and working conditions, and taking over the employers' responsibilities under those agreements.

Methods of Enforcing Collective Agreements

Even after unions had established the right to act in furtherance of their members' economic interest, the courts were generally reluctant to accord the same status to agreements entered into between unions and employers as to individual contracts of employment. By gradual stages, however, and by different processes in the several countries, the collective agreements came to be accepted as valid contracts. Thus, France, the Netherlands, and the Scandinavian countries have defined by legislation the form and content of a legally binding collective agreement and have prescribed the methods of enforcing it. In Great Britain and Belgium, the parties are able to enter into collective agreements without legal impediment, but there is no specific legislation for aiding the enforcement of such agreements. The Scandinavian countries have provided special labor courts to hear and decide disputes arising out of the application and interpretation of collective agreements.

Countries without court enforcement.—The development of collective agreements was hampered in certain countries because unions were held to be combinations in restraint of trade. In Great Britain the Trade Union Act of 1871 removed this disability; but the Trades Disputes Act of 1906 provided that action against either a trade-union or an employers' association, arising out of a trade dispute, shall not be entertained in any court. Observance of the agreements rests upon the good faith of the parties, and upon their ability to

[6] See Monthly Labor Review, June 1943 (p. 1170).

require observance by the members of their associations. Strikes, lock-outs, and other forms of direct action to enforce collective agreements are legal. Such actions are, however, seldom resorted to during the life of an agreement, by either side. Since 1940, refusal to observe the "recognized" terms and conditions of employment may constitute violation of a government regulation of which the details are noted on page 1023.

Belgium, like Great Britain, has withheld the sanction of the damage suit for breach of agreement. In both countries, the collective agreement has juridical force only through the individual agreement in which its terms have been incorporated. In spite of this, collective agreements are widely used and respected in both Belgium and Great Britain.

Countries using regular courts.—The Netherlands and France have given legal sanction through the regular court procedures to collective agreements and have endowed the associations with the right to sue for damages. In the Netherlands, incorporated associations of employers and employees may, by a 1927 law, enter into legally valid agreements with each other, regulating conditions of employment. Such agreements may be enforced by suits in the regular courts. The French laws of 1919 and 1946 provide similar resort to the civil courts. In case of a violation, by an association or one of its members, in both the Netherlands and France, the opposing association may bring suit for damages for the loss incurred by itself or by one of its members. The associations are obligated to endeavor to insure observance of the agreement by their members, but unless the agreement so provides an association is not liable for the actions of its members. Under the Netherlands law, the members of an association who have bound themselves by a collective agreement must abide by its terms even if they withdraw from the association; but they are not bound by amendments to the original agreement adopted subsequent to their withdrawal.

In the Netherlands, collective-agreements clauses which bind an employer to employ, or not to employ, persons who belong to a particular union, party, or religious denomination are declared null and void by law. This prohibits closed shop or "yellow dog" clauses in agreements, but the law also requires employers to give non-union employees the same terms of employment as those specified in the collective agreement.

Countries with labor courts.—In the three Scandinavian countries, collective agreements are enforceable in specially constituted labor courts. These have existed in Denmark since 1910, in Norway since 1915, and in Sweden since 1929.

In Denmark, the scope of the court's authority is based on an agreement between the central federations of employers and unions, who are also permitted to appoint the members of the court. The law itself specifies only a few legal directives. Originally established for the settlement of disputes arising out of the interpretation of the basic agreement between the central federations, the work of the court has been extended to interpret all collective agreements between employers and unions. Only organizations, not individuals, may bring cases before the court.

In Norway, also, individuals are precluded from bringing cases before the Labor Court. Furthermore, local questions arising out of the interpretation and application of agreements are referred in the first instance to the regular courts. The Labor Court is thus reserved for questions of national scope or for appeals. In other respects the legislation in Norway and Sweden are substantially similar.

Swedish law regulates in some detail the form and content of collective agreements and provides for the liability of the parties. A collective agreement entered into by an association is binding on the members of the association; a member who leaves the association does not cease to be bound on that account. The terms of the agreement supersede the terms of individual contracts and cannot be altered by such contracts, except as permitted by the collective agreement. Hostile actions by either party (including lock-out, strike, blockade, or boycott) are prohibited during the term of the agreement in disputes concerning interpretation or application of the agreement, or in disputes for the purpose of altering terms of the agreement. An association which is bound by a collective contract must endeavor under the Swedish law to prevent its members from committing unlawful hostile actions. Breach of the agreement, or failure to carry out the obligations imposed, renders the offending party (whether employer, employee, union, or association) liable to damages for loss incurred. Damages imposed on an individual employee may not exceed 200 kronor.

Cases may be brought before the Swedish Labor Court by an association or an individual, but a member may not bring action unless he shows that the association has refused to take action on his behalf. The Labor Court is precluded from considering a case until after such negotiations as may be required by the agreement have taken place. If the parties prefer, they may refer disputes to outside arbitrators.

Wage and Hour Statistics

Wages in Sawmills in the South, September-October 1946[1]

SAWMILLING, one of the leading southern industries, employed about 200,000 workers [2] in the fall of 1946. The industry is composed of a large number of establishments, but many of these are small and employ comparatively few workers. A large number of the mills are of the portable type, which change the site of their operations frequently as areas of supply are "logged out." Operations are somewhat seasonal, particularly in the smaller mills, and the industry depends to a considerable extent on off-season farm labor.

Variations in Average Hourly Earnings

Straight-time hourly earnings in sawmilling in the South averaged 64 cents an hour in September and October 1946, exclusive of premium pay for overtime and night work.[3] After August 1944, when the Bureau's latest previous study of the sawmilling industry was conducted, average hourly earnings of southern sawmill workers increased by approximately one-fourth.

Three-fifths of the workers received rates of 50 to 65 cents an hour in the fall of 1946. Earnings of a third of the employees were 65 cents or more, and 1 in 20 received less than 50 cents an hour (table 1). In August 1944, nearly two-fifths of the southern workers received less than 50 cents, and hourly earnings for more than three-fourths were below 55 cents.

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[1] Prepared in the Bureau's Wage Analysis Branch by John F. Laciskey. Field work for the survey was directed by the Bureau's regional wage analysts.

[2] As used in this survey, the South includes the following States: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

[3] The study upon which this article is based was limited to sawmills primarily engaged in producing lumber or sawed timber, with or without integrated logging operations, which employed at least 8 workers; 641 such sawmills, with nearly 46,000 workers, were included in the sample studied. More detailed information on the wage structure of sawmilling in the South will be available in a forthcoming bulletin.

Rates paid to women workers are not shown because such workers constituted less than 1 percent of the labor force. The average for women workers was 54 cents an hour.

TABLE 1.—*Percentage distribution of sawmill workers in the South by straight-time average hourly earnings [1] and State, September–October 1946*

Average hourly earnings	Total South	Alabama	Arkansas	Florida	Georgia	Kentucky	Louisiana	Mississippi
Total number of workers	196,477	27,683	20,314	7,677	21,635	5,465	20,365	20,058
Average hourly earnings [1]	$0.64	$0.59	$0.66	$0.66	$0.63	$0.69	$0.64	$0.63
Under 40.0 cents	0.1	0.5	[2]	----	----	----	[2]	----
40.0–44.9 cents	1.1	3.1	0.3	1.9	0.7	----	1.2	0.9
45.0–49.9 cents	3.7	6.0	.2	.8	1.9	0.1	6.2	6.0
50.0–54.9 cents	18.9	34.4	14.6	15.9	21.3	8.2	24.5	21.1
55.0–59.9 cents	14.7	14.6	17.9	16.5	10.9	17.1	23.1	16.6
60.0–64.9 cents	25.4	19.8	30.3	21.3	33.1	26.2	16.6	28.9
65.0–69.9 cents	11.1	8.0	12.9	12.0	10.2	14.0	7.2	7.2
70.0–74.9 cents	6.1	3.1	6.5	9.1	5.2	10.2	3.0	3.2
75.0–79.9 cents	6.6	3.0	3.1	7.1	7.7	9.9	4.1	5.4
80.0–84.9 cents	2.5	1.4	3.6	2.8	1.8	2.7	2.5	1.2
85.0–89.9 cents	1.9	1.5	2.0	1.7	1.5	1.1	1.3	1.8
90.0–94.9 cents	1.3	.6	1.4	1.9	1.1	1.0	1.0	1.0
95.0–99.9 cents	.6	.1	1.0	1.4	.1	.3	.9	.6
100.0–109.9 cents	3.1	2.0	3.0	3.8	3.0	3.1	2.8	3.1
110.0–119.9 cents	.9	.7	1.1	1.3	.2	1.4	1.1	1.0
120.0–129.9 cents	1.0	.8	.6	1.0	1.0	2.7	1.6	1.1
130.0–139.9 cents	.3	.2	.4	.8	.2	.4	.8	.2
140.0–149.9 cents	.2	[2]	.4	.3	[2]	----	.6	.2
150.0 cents and over	.5	.2	.7	.4	.1	1.6	1.5	.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Average hourly earnings	North Carolina	Oklahoma	South Carolina	Tennessee	Texas	Virginia	West Virginia
Total number of workers	16,370	2,183	11,840	6,530	17,549	12,296	6,512
Average hourly earnings [1]	$0.66	$0.70	$0.62	$0.66	$0.65	$0.68	$0.75
Under 40.0 cents	[2]	----	----	----	----	----	----
40.0–44.9 cents	0.2	----	3.2	----	0.1	0.1	0.4
45.0–49.9 cents	2.1	----	4.2	0.8	10.2	[2]	.3
50.0–54.9 cents	12.9	----	24.7	11.9	13.6	6.4	2.8
55.0–59.9 cents	11.0	----	14.1	16.8	15.6	8.7	3.4
60.0–64.9 cents	28.1	42.4	24.0	23.9	26.1	26.0	15.6
65.0–69.9 cents	10.3	20.7	9.7	19.6	10.5	21.4	16.5
70.0–74.9 cents	9.2	7.9	5.9	8.7	6.9	11.7	9.5
75.0–79.9 cents	11.4	12.8	4.9	5.7	3.6	13.3	23.0
80.0–84.9 cents	2.4	4.9	1.3	2.8	2.0	4.6	7.2
85.0–89.9 cents	2.3	3.8	.9	.9	2.0	1.3	8.3
90.0–94.9 cents	3.1	1.8	.5	2.5	1.5	1.1	3.3
95.0–99.9 cents	----	1.2	.3	.5	.9	.6	2.3
100.0–109.9 cents	5.6	2.6	4.3	1.7	2.4	3.2	3.3
110.0–119.9 cents	.6	.6	.9	1.5	1.9	.4	.9
120.0–129.9 cents	.5	.2	.6	1.7	1.0	.8	1.8
130.0–139.9 cents	.2	.7	.1	.2	.7	.1	.2
140.0–149.9 cents	----	.1	----	.8	.5	----	.6
150.0 cents and over	.1	.3	.4	----	.5	.3	.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Excludes premium pay for overtime and night work.
[2] Less than 0.05 of 1 percent.

About four-fifths of the workers in the industry were employed by establishments that carried on both logging and sawmilling operations. Average earnings were the same in mills of this type as in those that had no integrated logging operations.

Both minimum entrance rates and job rates ranged from less than 40 to 85 cents or more. The primary concentration was at 50 cents, in approximately three-tenths of the mills, and a secondary concentration at 60 cents occurred in a fifth of the mills. Roughly three-fifths of the sawmills surveyed had minimum rates of 55 cents or less.

TABLE 2.—*Straight-time average hourly earnings[1] for men in sawmills in the South, by occupation and State, September–October 1946*

Occupation	Average hourly rates in—							
	Total South	Alabama	Arkansas	Florida	Georgia	Kentucky	Louisiana	Mississippi
Sawmilling								
Band-head-saw operators	$1.13	$1.18	$1.16	$1.43	$0.99	$1.07	$1.16	$1.14
Block setters	.68	.64	.68	.70	.66	.70	.68	.69
Circular-head-saw operators	.97	.92	.86	.98	.91	1.09	1.01	1.03
Edgermen	.65	.61	.67	.66	.65	.69	.64	.66
Graders:								
Lumber, green chain	.73	.63	.64	.82	.80	.95	.73	.75
Lumber, planed	.70	.70	.69	.75	.68	1.17	.70	.70
Janitors (mill clean-up men)	.53	.47	.57	.54	.51	.57	.51	.54
Millwrights	.90	.90	.89	.99	1.23	.80	.85	.86
Off-bearers, machine	.58	.54	.60	.56	.58	.59	.57	.58
Pondmen and yardmen	.56	.52	.58	.62	.59	.60	.52	.54
Saw filers	1.03	1.04	.96	.97	.93	1.14	1.03	1.06
Sorters, green chain	.56	.52	.59	.55	.57	.62	.55	.55
Trimmermen	.59	.56	.61	.59	.56	.66	.57	.59
Watchmen	.53	.49	.56	.55	.49	.62	.53	.51
Logging								
Cat drivers, skidding	.69	.64	.75	.72	.67	.81	.64	.64
Chokermen	.59	.54	.63	.67	.63	.63	-------	.56
Fallers and buckers:								
Hand	.71	.55	.76	.80	.61	.89	.90	.70
Power	.67	.62	.70	.84	.65	1.10	.65	.64
Teamsters, logging	.61	.56	.59	.61	.62	.70	.57	.58
Truck drivers, logging	.62	.58	.63	.65	.62	.66	.58	.57

Occupation	Average hourly rates in—						
	North Carolina	Oklahoma	South Carolina	Tennessee	Texas	Virginia	West Virginia
Sawmilling							
Band-head-saw operators	$0.90	$1.25	$1.24	$1.15	$1.10	$1.07	$1.20
Block setters	.65	.81	.60	.72	.68	.74	.81
Circular-head-saw operators	.98	.97	.99	1.09	.93	1.01	1.07
Edgermen	.66	.73	.61	.71	.66	.66	.76
Graders:							
Lumber, green chain	.76	.70	.77	.65	.61	.82	.82
Lumber, planed	.72	.70	.66	-------	.65	.73	.86
Janitors (mill clean-up men)	.58	.60	.49	.57	.52	.63	.72
Millwrights	1.02	.95	.91	-------	.79	.90	.91
Off-bearers, machine	.63	.64	.57	.61	.57	.62	.67
Pondmen and yardmen	.60	.71	.55	.59	.56	.61	.70
Saw filers	.92	1.08	1.11	1.08	1.03	1.14	.82
Sorters, green chain	.57	.60	.53	.59	.55	.59	.70
Trimmermen	.60	.64	.55	.63	.60	.63	.66
Watchmen	.54	.60	.50	.55	.52	.56	.57
Logging							
Cat drivers, skidding	.74	-------	.69	.66	.63	.73	.77
Chokermen	.59	-------	.61	.54	.54	.58	.66
Fallers and buckers:							
Hand	.67	.89	.64	.62	.90	.67	.76
Power	.84	.75	.60	.51	-------	.68	.82
Teamsters, logging	.66	.60	.60	.63	.60	.66	-------
Truck drivers, logging	.66	.78	.62	.61	.63	.69	-------

[1] Excludes premium pay for overtime and night work.

The general level of wages varied by about 30 percent between the States having the lowest and the highest wage rates. The average for West Virginia (75 cents) was 5 cents above that for any other State, while for Virginia, Kentucky, and Oklahoma, the averages

ranged from 68 cents an hour to 70 cents. Hourly earnings of 65 and 66 cents were reported in Tennessee, North Carolina, Arkansas, Florida, and Texas. In the adjoining States of South Carolina, Georgia, Alabama, Mississippi, and Louisiana, where over half of all southern sawmill employment was found, the averages were 64 cents or less. The lowest earnings—59 cents—were reported in Alabama, which employed one-seventh of all sawmill workers in the South.

The geographic wage pattern apparent in over-all State averages was also evident in the distribution of individual workers' earnings. In the 5 States with the lowest averages, about two-thirds of the workers earned from 50 to 65 cents. Over three-fourths of the employees in West Virginia had hourly rates of at least 65 cents.

No consistent differences in earnings were found between establishments primarily engaged in processing softwood and hardwood, nor between establishments of different sizes. Earnings of incentive workers were distinctly higher than those of time workers in the limited number of jobs in which both methods of payment were important. Average earnings tended to be higher in union than in nonunion mills. The former employed about a tenth of all southern sawmilling workers.

There was more variation in average wage rates among the relatively skilled occupations, such as head saw operators, saw filers, and maintenance workers, than among the other key jobs studied. Taking into consideration average earnings for the entire South, these skilled workers earned from 50 to 110 percent more than those in the lowest-paid jobs studied—janitors (mill clean-up men), watchmen, green saw-chain sorters, and pondmen and yardmen—whose hourly rates averaged from 53 to 56 cents for the entire South (table 2). The average hourly rates for other key jobs exceeded the lowest wage jobs by less than 40 percent. Averages for the skilled jobs usually differed by at least 40 percent between the lowest-wage State and the highest-wage State, whereas a differential of a fourth to a third was common for the other occupations surveyed.

Supplementary Wage Practices

Multiple-shift operation was practically nonexistent, but scheduled workweeks frequently exceeded 40 hours. Only 1 percent of the employees worked on evening or night shifts. Although 40 hours was the most common single workweek schedule (reported by 3 out of every 7 sawmills studied), a sixth had a 45-hour schedule, and an almost equal number were on a 50-hour schedule. These longer workweeks were most frequent in the Southwestern States (Arkansas, Louisiana, and Texas).

Supplements to wages in the form of nonproduction bonuses, vacation and sick leave, and insurance or pension plans were not common in southern sawmills, except for office workers. Bonuses not directly related to production were reported by 1 of every 11 sawmills studied, and amounted to only a tenth of a cent per hour when averaged over all workers.

Only about 7 percent of the sawmills granted vacations with pay to their plant workers; over two-fifths of those having office workers reported paid vacations for that group. The vacation provided was generally 1 week after 1 year's service.

About a tenth of the southern mills provided insurance and pension plans for their plant workers, while a sixth of those employing office workers offered such benefits. Nearly all the plans provided for either life or health insurance.

Wage Structure of Textile Dyeing and Finishing Industry, July 1946[1]

PLANT WORKERS in the textile dyeing and finishing industry in July 1946 were paid an average wage of 89 cents an hour, exclusive of overtime and shift premiums.[2] About three-fourths of the 64,000 workers received between 65 cents and $1 an hour, with less than 5 percent earning under 65 cents (table 1). Men's earnings (averaging 92 cents) exceeded those of women (75 cents) by 23 percent, but women comprised only about a sixth of the plant labor force. Over two-thirds of the men earned from 70 cents to $1, while an almost equal proportion of women earned from 65 to 85 cents. Hourly earnings of less than 65 cents were received by only 2 percent of the men and by 13 percent of the women.

The industry is concentrated in the three main textile-producing regions—New England, the Middle Atlantic States, and the Southeast. Over a third of the industry's workers were located in the Middle Atlantic States. These workers averaged 96 cents an hour. Each of the other two regions had slightly less than a third of the workers. Hourly earnings of the New England workers averaged 91 cents and of those in the Southeast 78 cents. Differences in product and processes, with accompanying variations in occupational structure, contributed substantially to these over-all variations. Other factors, such as unionization and method of wage payment, were also important.

Variations in Average Hourly Earnings

Over-all differences in men's earnings, among the three regions, followed practically the same pattern as that for all workers, with the averages for men being 2 or 3 cents higher in each region than the corresponding all-worker figures. Women's earnings, however, showed a different pattern. Whereas men in New England earned 6 cents less, on the average, than those in the Middle Atlantic States, the positions were exactly reversed for women. Furthermore, average earnings of men in Middle Atlantic establishments were 19 cents

[1] Prepared by Louis Badenhoop on the basis of a field survey made under the direction of the Bureau's regional wage analysts. Detailed information on wages and related practices will be presented in a mimeographed report, Wage Structure—Textile Dyeing and Finishing—July 1946.

[2] Data are based on a July 1946 survey of 193 textile dyeing and finishing establishments with a total employment of 37,704 workers, representing approximately half of the establishments and estimated employment. The study excluded establishments primarily engaged in dyeing and finishing knit goods. The number of workers in the tables represent the estimated employment on all shifts in all establishments with 8 or more employees rather than employment in the plants actually surveyed. Field representatives of the Bureau obtained the data from pay rolls and other company records.

above those in the Southeast, but the advantage for women was only 3 cents. Men outnumbered women 9 to 1 in the Middle Atlantic States, but the ratios were 5 to 1 in New England and 2½ to 1 in the Southeast.

TABLE 1.—*Percentage distribution of textile dyeing and finishing workers, by straight-time average hourly earnings,[1] United States and selected regions, July 1946*

Average hourly earnings [1]	United States [2]	New England	Middle Atlantic	Southeast
Under 50.0 cents	[3]		[3]	0.1
50.0-54.9 cents	0.7	[3]	0.1	2.2
55.0-59.9 cents	1.3	0.1	.3	3.7
60.0-64.9 cents	2.1	.4	1.0	5.3
65.0-69.9 cents	7.6	2.1	3.3	18.8
70.0-74.9 cents	9.9	8.0	3.1	19.4
75.0-79.9 cents	11.1	13.1	5.4	14.3
80.0-84.9 cents	13.8	20.0	9.6	12.5
85.0-89.9 cents	13.4	19.1	13.0	8.6
90.0-94.9 cents	5.6	8.9	3.4	4.4
95.0-99.9 cents	13.6	7.9	27.3	3.3
100.0-104.9 cents	5.7	7.6	7.6	1.6
105.0-109.9 cents	4.3	3.4	7.6	1.5
110.0-114.9 cents	3.3	2.3	5.8	1.6
115.0-119.9 cents	2.5	1.9	4.9	.4
120.0-129.9 cents	2.2	2.0	3.4	1.0
130.0-139.9 cents	1.1	.9	1.9	.4
140.0-149.9 cents	.4	.2	.7	.2
150.0-159.9 cents	.2	.1	.4	.1
160.0-169.9 cents	.1	.1	.2	.1
170.0-179.9 cents	.1	.1	.2	.1
180.0-189.9 cents	.1	.2	.1	
190.0-199.9 cents	[3]	[3]	[3]	
200.0-209.9 cents	[3]	[3]	.1	[3]
210.0-219.9 cents	.1	.3	.1	[3]
220.0-229.9 cents	.3	.5	.3	[3]
230.0-239.9 cents	.2	.3	.1	.1
240.0-249.9 cents	.2	.4	.1	.1
250.0 cents and over	.1	.1	[3]	.2
Total	100.0	100.0	100.0	100.0
Total number of workers	63,597	19,348	23,204	19,233
Average hourly earnings [1]	$0.89	$0.91	$0.96	$0.78

[1] Excludes premium pay for overtime and night work.
[2] Includes data for other regions in addition to those shown separately.
[3] Less than 0.05 of 1 percent.

Workers engaged in dyeing and finishing silk and rayon had substantial wage advantages, both over-all and, generally, by occupation, over those specializing in cotton and linen or in woolens and worsteds.[3] (See table 2.) This favorable position reflected, in the main, the high wages paid in Paterson, N. J., where almost half of the workers in the silk and rayon branch of the industry are located. The proportionately small groups of rayon and silk workers in New England and the Southeast earned less, on the average, than workers in plants handling cotton and linen, the principal products in these regions, although by occupation, the differences sometimes were in favor of the rayon and silk workers.

[3] The dyeing and finishing of woolens and worsteds generally is done in the textile mills rather than in the independent establishments covered in this study.

TABLE 2.—*Straight-time average hourly earnings* [1] *of textile dyeing and finishing workers and for selected occupations, United States and selected regions, by type of product,* [2] *July 1946*

Occupation and sex	United States [3]						New England						Middle Atlantic						Southeast			
	Silk and rayon		Cotton and linen		Woolen and worsted		Silk and rayon		Cotton and linen		Woolen and worsted		Silk and rayon		Cotton and linen		Woolen and worsted		Silk and rayon		Cotton and linen	
	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates
All plant workers	19,079	$0.96	38,239	$0.85	2,640	$0.86	2,463	$0.87	15,831	$0.92	1,054	$0.85	14,958	$1.00	3,190	$0.90	1,586	$0.86	1,658	$0.75	17,575	$0.78
Men																						
Back tenders, printing	205	1.02	476	.94			1	(4)	372	.92			204	1.02	16	1.10					(4)	(4)
Boil-off machine operators	631	.93	148	.80	10	(4)			25	.93			570	.95	10	.76	10	.98	61	.73	110	.77
Calender tenders	383	.95	423	.86	14	(4)	60	.87	208	.89	8	(4)	308	.98	52	.79	6	(4)	15	.76	136	.84
Carpenters, maintenance	51	1.16	235	1.01	7	(4)	10	1.05	123	1.05	5	1.09	40	1.18	18	1.06	2	(4)	1	(4)	82	.94
Color mixers:																						
Dye house	282	1.03	329	.93	29	.97	40	.88	107	1.01	11	.98	212	1.08	54	1.04	18	.96	30	.88	148	.84
Print shop	101	1.09	194	1.02			9	(4)	146	.97			92	1.10	8	(4)					(4)	(4)
Dry-can operators	373	.94	708	.83	6	(4)	39	.85	344	.85			324	.95	128	.90	6	(4)	10	.76	191	.76
Dyeing-machine tenders:																						
Cloth, jigger	1,363	.94	1,100	.88	36	.90	256	.89	465	.92			1,050	.96	104	.95	36	.90	57	.78	464	.84
Cloth, other	388	.83	609	.83	56	.85	62	.88	235	.87	56	.85	70	.95	30	.92			256	.78	236	.81
Cloth, spiral dye beck	1,750	.94	248	.89	34	.96	55	.90	60	.96			1,652	.95	172	.87	34	.96	43	.66	16	.87
Yarn	174	.95	300	.84	293	.95	6	(4)	74	.91	17	.85	162	.97	60	.88	276	.96	6	(4)	166	.80
Electricians, maintenance	59	1.21	215	1.04	2	(4)	11	1.08	84	1.09	2	(4)	46	1.24	4	(4)			2	(4)	117	1.00
Inspectors, cloth, hand	121	.99	437	1.01	16	(4)	25	1.27	188	1.15	4	(4)	64	.99			12	.96	32	.78	228	.88
Janitors	169	.86	415	.71	12	(4)	26	.81	131	.82	8	(4)	116	.93	16	.76	4	(4)	27	.65	246	.64
Kier operators	5	(4)	240	.88			5	(4)	120	.88					44	.88					64	.88
Machine printers	134	2.08	385	2.26					295	2.26			134	2.08	12	1.88					(4)	(4)
Machinists, maintenance	47	1.19	281	1.07	4	(4)	18	1.12	166	1.08	4	(4)	26	1.24	6	1.05			3	(4)	85	1.04
Maintenance men, general utility	268	1.09	122	1.01	38	.95	38	1.02	56	1.02	8	1.02	226	1.11	44	1.08	30	.93	4	(4)	19	.82
Mangle tenders	359	.99	647	.83	20	.82	40	.93	260	.88	16	.80	276	1.02	38	.87	4	(4)	43	.80	275	.80
Mechanics, maintenance	106	1.09	354	.99	16	1.07	2	(4)	75	1.06	2	(4)	64	1.16	32	1.15	14	1.08	40	.95	246	.94
Screen printers, hand	277	1.25	449	.95			31	1.10	393	.94			246	1.27	56	1.05						
Second hands	132	1.08	661	1.15	59	1.15	32	.98	276	1.12	35	1.23	88	1.13	46	1.16	24	1.02	12	.94	311	1.19
Stock clerks	121	.99	126	.86	7	(4)	6	(4)	36	.90	3	(4)	110	1.00	22	.86	4	(4)	5	(4)	47	.87
Tenter-frame tenders	1,084	.98	850	.85	35	.87	50	.91	437	.87	21	.85	954	1.00	126	.89	14	.89	80	.78	242	.78
Truckers, hand	592	.89	2,105	.74	30	.88	199	.84	782	.83	20	.89	346	.95	106	.79	10	.88	47	.66	1,129	.66
Washer tenders, cloth	146	.92	719	.85	61	.85	53	.87	456	.88	41	.80	84	.97	52	.74	20	.95	9	(4)	160	.82
Watchmen	231	.85	388	.77	40	.70	33	.76	205	.83	14	.79	166	.90	40	.70	26	.66	32	.70	135	.71
Winders, cloth, bolts or tubes	578	.93	524	.87	16	(4)	35	.88	187	.95	12	.80	466	.97	88	.94	4	(4)	77	.74	213	.78

Winders, cloth, bolts or tubes	578	.93	524	.87	16	(4)	35	.88	187	.95	12	.80	466	.97	88	.94	4	(4)	77	.74	213	.78
Women																						
Inspectors, cloth, hand	78	.73	112	.76	52	.82	1	(4)	57	.80	52	.82	50	.75					27	.70	49	.73
Screen printers, hand			97	1.11					65	1.00					32	1.33						
Tenter-frame tenders	8	(4)	77	.68					23	.73			8	(4)	14	.60					40	.69
Winders, cloth, bo ts or tubes	104	.79	180	.78			26	.81	108	.78			78	.78	10	.74					60	.80
Winders, yarn	182	.65	1,495	.73	231	.71			160	.72	79	.69	32	.65	6	.66	152	.72	150	.65	1,271	.74

[1] Excludes premium pay for overtime and night work.
[2] Excludes 15 establishments which could not be classified.
[3] Includes data for other regions in addition to those shown separately.
[4] Insufficient number of plants and/or workers to justify presentation of an average.

Wage variations according to product were, in turn, influenced by differences in processes. Considerable quantities of rayon and cotton cloth are finished with printed designs, production of which requires a large proportion of skilled and semiskilled workers. Printing of rayon is concentrated in the Middle Atlantic States, while cotton printing is done primarily in the other two regions. The printing process was not used in any of the woolen and worsted plants studied, which accounts for the relatively unfavorable over-all wage position of dyeing and finishing workers in this branch of the industry. Furthermore, yarn dyeing rather than piece-goods dyeing predominated in the independent woolen and worsted establishments covered by the study, while rayon and cotton were more frequently dyed in the piece. The occupational structures differ between the two types of dyeing, thus accounting for some of the differences in over-all average earnings. In addition, significant variations in types of finishing processes also contributed to these differences.

Workers in unionized establishments in the Middle Atlantic region earned, on the average, 16 cents an hour more than those in nonunion plants; the proportion of the former to the latter being, roughly, 7 to 1. Although the workers in union plants had a wage advantage in most occupations for which comparisons were made, the extent of the over-all difference was not entirely the result of favorable margins in comparable jobs, as differences in process again influenced the relationships. No printing occupations were reported in the nonunion plants, while a considerable number of workers in these high-paying occupations were found in union establishments. In New England also, workers in union shops greatly outnumbered those in nonunion plants. Job rates were found to be higher, on the average, in the nonunion establishments in a majority of the occupations, although union workers as a group had a 4-cent advantage. In the Southeast, union workers had higher average earnings than nonunion workers in a majority of occupations, but they constituted slightly less than half of the total number employed.

Average earnings tended to increase with size of establishment, although such factors as method of wage payment and unionization probably contributed partly to the increase. Earnings in a substantial majority of the occupations studied were higher in plants employing over 500 workers, than in those employing from 101 to 500 workers, particularly in the New England and Middle Atlantic regions. Similar variations, though less pronounced, existed in these two regions between earnings in the intermediate-sized (101 to 500 workers) and the smaller plants (8 to 100 workers).

Minimum entrance or hiring rates for inexperienced workers, and minimum job rates paid to experienced workers, varied widely for

both men and women, but showed marked concentrations in the range from 60 through 80 cents. Medians for entrance rates were 5 cents lower than for job rates; and medians for both entrance and job rates were 5 cents higher for men (70 and 75 cents, respectively) than for women (65 and 70 cents).

Supplementary Wage Practices

Schedules exceeding 40 hours a week for first-shift workers were in effect for men in over two-fifths of the plants, and for women in a third of the plants. A fourth of the establishments had schedules of 48 hours or more for men, and a sixth had similar schedules for women. Extra shifts were reported by slightly more than half the establishments, and nearly a third had more than two shifts. Workers on extra shifts accounted for approximately a third of the plant labor force—roughly, a fourth of the force on the second shift and a tenth on the third or other shift. Over two-fifths of the plants which operated second shifts paid a differential, generally of 5 cents, in addition to the first-shift hourly rate.

Payment (usually at Christmas) of nonproduction bonuses was reported by more than two-fifths of the establishments. Averaged over all workers in the industry, these bonuses, however, increased hourly earnings by only four-tenths of a cent for plant workers and by 1 cent for office workers.

Paid vacations for both plant and office workers were granted in approximately 9 of every 10 establishments. These plans generally provided 1 week for plant workers and from 1 to 2 weeks for office workers, each year. Paid sick-leave provisions for plant workers, however, were reported by only 3 plants, which allowed 5 days a year; similar provisions for office workers were reported by 8 plants, the time allowed varying from 5 to 30 days.

Over two-thirds of the establishments reported at least one type of insurance or pension plan, paid for wholly or in part by the employer, for both plant and office workers. Among these establishments over four-fifths provided life insurance plans and almost three-fourths accident or health insurance.

Employees were paid for their lunch periods (generally, 30 minutes) in only 14 plants, 9 of which were in New England.

Labor Laws and Decisions

Progress of State Minimum-Wage Legislation, 1946

By ALICE ANGUS and LORETTA SULLIVAN, *U. S. Women's Bureau*

THE YEAR 1946 was especially notable in recent minimum-wage history. It surpassed any of the war years in the number of wage orders put into effect. In number of wage boards called and studies made preparatory to additional wage orders, it was comparable to the period of intense activity following the U. S. Supreme Court decision in the *Parrish* case.[1] The plans laid in the last months of 1945 were well on their way to completion; in several States postwar goals of more adequate minimum-wage rates and broader wage-order coverage were plainly in sight. Legislatively, also, the year showed a gain in that Massachusetts amended its law to include men workers, being the fourth State to do so.

Essentially 1946 was transitional, marking the change from prewar and depression wage levels to the greatly changed economic conditions of the postwar years. Its significance, therefore, lies not merely in a numerical count of its accomplishments, but in the foundation it laid for the period immediately ahead.

Wage Orders[2]

ORDERS EFFECTIVE IN 1946

During the year, 14 wage orders were revised and became effective in 9 jurisdictions—Connecticut, District of Columbia, Massachusetts, New Hampshire, New Jersey, North Dakota, Oregon, Rhode Island, and Utah. Puerto Rico also issued an order for the construction industry. These orders covered a variety of industries and occupations. Industries for which orders became effective were retail or mercantile trade (Connecticut, New Hampshire, North Dakota, Rhode Island, and Utah), public housekeeping (District of Columbia, North Dakota, and Utah), laundry and dry cleaning (District of

[1] *West Coast Hotel Co.* v. *Parrish*, 300 U. S. 379 (1937) upheld the constitutionality of the Washington State minimum-wage law and expressly overruled the Court's previous adverse decision in *Adkins* v. *Children's Hospital*, 261 U. S. 525 (1923).

[2] See detailed table showing provisions of individual wage orders issued by the various States in 1946 and effective during that year (p. 1047).

Columbia, New Jersey, and Utah), restaurant (Utah), canning (Oregon), and clerical and technical occupations (Massachusetts).

The 14 orders covered approximately 200,000 women. Wage orders in Connecticut, Massachusetts, and Rhode Island apply also to men under the minimum-wage laws as amended in those States. It is estimated that the three orders which became effective in 1946 covered approximately 160,000 men. By far the greatest number of workers protected by any single wage order were those coming under the Massachusetts order for clerical, technical, and similar occupations. This single order covers an estimated total of more than 125,000 women and about 100,000 men.

All the State wage orders which became effective in 1946 were revisions of earlier orders. The wages and standards thus established are of importance in relation to the orders they replaced. Therefore, a comparison of some of the various provisions of both revised and old orders is given.

Wage rates.—In general, the proportional increase in basic minimum rates in the revised orders over those they replaced range from a third to a half. Increases in the retail or mercantile trade—the industry in which the largest number of orders were issued—are typical of rate increases generally: In Connecticut and Rhode Island, the orders set basic minimum weekly rates of $22, as against the previous rates of $16 and $14, respectively. Utah set a top basic weekly rate of $20 in place of its former $14 rate. North Dakota set $16.90 a week in lieu of the previous $13 minimum; and New Hampshire replaced a $13.20 weekly rate by a straight hourly rate of 50 cents. In orders covering other industries, rate increases were of approximately similar proportions: for example, the 50-cent hourly rate in the New Jersey revised laundry and cleaning and dyeing order, compared with the earlier 33-cent rate; and $22 a week in the District of Columbia new laundry, dry cleaning, and dyeing order, against the $14.50 previously designated.

Although these increases of themselves do not throw much light on the adequacy of the wage rates at either period, they serve to illustrate the efficacy of the wage-board system in keeping abreast of cost-of-living advances since the prewar period.

Hours, overtime, etc.—Several of the orders continued the practice of setting weekly wages based on a span of hours but shortened the hours to which the weekly rate applied, thus giving an additional wage boost. For example, in Rhode Island's previous retail-trade order, the basic weekly rate applied to a workweek of 42½ to 48 hours, and in Connecticut's earlier mercantile order, it applied to the establishment's standard week which might be as long as 48 hours; in the revised

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orders of both States the basic rate applies to a workweek of 36 to 44 hours.

In addition to shortening basic hours, the revised orders make more frequent provision for overtime rates. In Rhode Island the revised retail-trade order requires payment for overtime after 44 hours at one and one-half times the minimum rate; and in Connecticut the revised mercantile order requires overtime pay after 44 hours at one and one-fourth times the worker's regular rate; the previous orders in these States contained no provisions for penalty overtime. In the revised Utah laundry and dry-cleaning order, the period at which overtime begins was reduced from 45 to 44 hours.

A number of the revised orders also set high standards for other working conditions. Some of these had been incorporated in previous orders and were maintained by recent wage boards, such as the provision of 1 week's vacation with pay after a year's service, which occurs in all the revised Utah orders, and the requirement of a rest period in each 4-hour shift in the North Dakota public-housekeeping order.

Included among the standards that appear for the first time in the revised orders are the 60-cent split-shift differential in the District of Columbia public-housekeeping order; the provision in the Rhode Island retail-trade order that employers requiring uniforms must furnish and launder them free of charge; and the elimination of occupational differentials in the District of Columbia laundry order.

Massachusetts order.—In any account of 1946 progress in wage orders, the Massachusetts order for clerical, technical, and similar occupations attracts attention. In the first place, it establishes unusually broad coverage, not only in numbers of workers but also in terms of related occupations, made possible by a comprehensive definition of the occupation. The old order was limited to the more usual clerical occupations; the revised order includes technical and professional workers and applies not only to offices, but also to hospitals, laboratories, the communication industries, and numerous related fields in which specialized training is necessary.[3]

The 60-cent hourly rate in the revised order is the highest rate presently in effect in nonseasonal employment, replacing the previous weekly rate of $16 for 36 hours or more.

The Massachusetts rate is also significant in that many of the covered workers are employed in interstate commerce (telephone, telegraph, and radio establishments, banks, insurance offices, etc.). Such workers receive the benefit of the 60-cent State rate in lieu of the 40-cent minimum set by the Federal Fair Labor Standards Act. The

[3] "All occupations in any general, business, professional or technical office, and in any laboratory, hospital, library, school, telephone, telegraph, or radio broadcasting establishment, or in messenger service, or other establishments wherein workers are employed in any capacity in which the services of any kind and wheresoever performed are of a clerical or technical character."—Massachusetts, Directory Order No. 24-A.

Massachusetts rate also specifically applies to industrial home work, which is fairly common in some clerical fields.

Although the Massachusetts order does not itself establish an overtime rate, workers in interstate commerce are entitled to a minimum 90-cent overtime rate under the Federal act. Among other standards included in the order is one stipulating that an employer who requires uniforms must furnish and launder them—an important consideration for laboratory and other technical workers.

Federal and State rates.—The establishment of a State rate above that set by the Federal Fair Labor Standards Act is common to all 1946 orders except those of North Dakota. This repeats the experience immediately following the Parrish case: 98 percent of the rates set for women by State orders in 1938 were higher than the Federal rate in effect for that year,[4] and 90 percent equaled or exceeded the Federal rate which went into effect a year later.[5]

With the changed postwar economy, the recent State practice of limiting rates to intrastate industry may no longer be expedient. To raise legal minimum-wage rates above 40 cents for interstate workers, it may be necessary for States to take action in line with that of Massachusetts in its 1946 clerical order.

OTHER WAGE-ORDER ACTIVITY

Not all the minimum-wage activity carried on during 1946 culminated in issuance of wage orders which became effective that year. By the end of the year, work on additional new or revised wage orders was in process in 14 jurisdictions.[6] In some cases, work had progressed to the wage-order stage, but orders had not yet become effective. In other States, the work was in the preparatory stage of setting up wage boards or making basic surveys for wage-board use.

At the end of 1946, wage orders were either in the final stage of preparation or were completed but not yet effective in the following States: California, each industry; Connecticut, beauty shop; Kentucky, all occupations (laundries and hotels and restaurants excluded); North Dakota, laundry and dry cleaning; Oregon, laundry; Rhode Island, public housekeeping; and Wisconsin, all occupations. Wage boards for additional industries were set up in the District of Columbia (retail trade) and in New York (hotel, restaurant, and laundry).

Work looking toward issuance of additional wage orders was begun in Connecticut, dry cleaning, laundry; Illinois, retail trade; Ken-

[4] The Federal rate was 25 cents from October 1938 to October 1939, 30 cents from then to October 1945, and 40 cents thereafter.

[5] See Progress of State Minimum-Wage Legislation in 1938, Monthly Labor Review, February 1939 (pp. 293-308).

[6] California, Connecticut, District of Columbia, Illinois, Kentucky, Massachusetts, Minnesota, New York, North Dakota, Oregon, Rhode Island, Utah, Washington, and Wisconsin.

tucky, laundry, hotel and restaurant; Massachusetts, public housekeeping; Minnesota, retail trade; Rhode Island, laundry; and Washington, individual industry wage orders. By the end of 1946, therefore, activities already under way indicated the issuance of approximately 36 additional industry wage orders.[7]

Court cases.—In the years immediately preceding the war, enforcement of new wage orders often was held up by the institution of court cases challenging the procedure followed in issuing the order.[8] In 1946 revision of the orders issued in the earlier period proceeded on the whole without serious legal set-back, except in one instance—Washington State.

Early in the year, Washington State issued a new "all-occupation" order applicable to all women employed in the State except in domestic work, agriculture, and small telephone and telegraph exchanges, to become effective June 5, 1946. This order (No. 1–A) established a minimum hourly rate of 65 cents for a workweek of 40 hours or less, overtime at time and a half for hours between the regular rate 40 and 48, and a maximum 8-hour day and 6-day 48-hour week; it also established various working-conditions standards.

A court case was immediately brought challenging the validity of the order, on the ground that wage boards had not been called and that procedural requirements provided in the minimum-wage law had not been met. After preliminary hearing, the lower court issued a temporary injunction restraining enforcement of the order, pending final adjudication of the case. Later, the parties entered into a stipulation to the effect that procedural requirements had not been complied with in the issuance of the order, whereupon the court issued a decree voiding the wage order on such grounds.

Washington State is now making careful plans for the issuance of new industry wage orders, based on wage surveys and the recommendations of industry wage boards. Meanwhile, the State is continuing to enforce its previous orders, some of which were issued as recently as 1942.

Cost-of-living studies.—Under nearly all State minimum-wage laws, cost of living is one of the principal factors which the wage boards must consider in recommending minimum-wage rates; in about half of such laws it is the only factor. In view of past difficulties expe-

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[7] As of the date of this article (May 1, 1947), 6 State wage orders had become effective in 1947, as follows: Connecticut, beauty shops, March 3; Kentucky, all occupations (laundries and hotels and restaurants excluded), February 8; North Dakota, laundry, cleaning and dyeing, March 10; Oregon, laundry, cleaning and dyeing, February 15; Rhode Island, public housekeeping, March 1; Wisconsin, all occupations, February 10.

[8] See Progress of State Minimum-Wage Legislation in 1938, and in 1939. Monthly Labor Review, February 1939 and February 1940 (pp. 293 and 312, respectively).

rienced by many States in making cost-of-living studies,[9] the progress made in 1946 in this aspect of minimum-wage administration should be mentioned.

During the year, New York and California followed their customary practice of obtaining factual cost-of-living data by pricing a woman's budget constructed at a minimum adequacy level. In addition, Connecticut completed the pricing of such a budget during the year, and Kentucky and Massachusetts issued budget figures based on actual pricings. New Jersey issued bimonthly cost-of-living figures obtained by applying the New Jersey index to its original priced budget. Budgets priced in previous years by the District of Columbia and Utah were revised and brought up to date on the basis of the Bureau of Labor Statistics consumers' price index. The figures representing the cost, at some period in 1946, of maintaining a self-supporting woman at a minimum adequate standard of living are as follows for these States:[10]

	Per year	*Per week*
California	$1,955.29	$37.60
Connecticut	1,461.16	28.10
District of Columbia	1,638.00	31.50
Kentucky	[1] 1,363.36	[1] 26.22
Massachusetts	[1] 1,336.38	[1] 25.70
New Jersey		[1] 35.37
New York	1,796.35	34.55
Utah	1,684.00	32.38

[1] Budgets issued by Kentucky, Massachusetts, and New Jersey do not include amounts for Federal and State income taxes, social security tax, or savings.

Legislation

The amendment of the Massachusetts law extending coverage to men, effective September 11, 1946, expressly provided that not only the statute itself, but also every wage order and regulation already in effect should apply to men.

New York amended the provisions of its minimum-wage law relating to the timing and contents of the report of the wage board to the industrial commissioner. The amendment also required the wage

[9] Although data obtained by current cost-of-living surveys are unquestionably of much value to a wage board as a basis for recommending minimum-wage rates, many States have found such surveys an insuperable task because of limitations of time, money, and staff. At the Twelfth Annual Conference of State Minimum-Wage Administrators called by the Women's Bureau in March 1946, a request was made that the Women's Bureau work with a committee of State administrators to develop cost-of-living data which could be kept current and continuously available for the use of States working on minimum-wage orders. As a result, a committee was set up which was representative of different types of minimum-wage laws as well as of different geographical regions of the country, and a program is now under way to develop current cost-of-living material in a form useful to wage boards.

[10] Two other States, Minnesota and Wisconsin, also made cost-of-living studies in 1946, but their figures are not yet available for distribution.

board to hold public hearings throughout the State before making its recommendations, and authorized the industrial commissioner to accept or reject the report in whole or in part.

No other minimum-wage legislation was enacted in 1946 in any of the 11 States which met in regular legislative sessions.[11] Objectives of State labor officials, unions, and citizens' groups continued to be the establishment in minimum-wage laws of statutory rates in addition to the provision for wage-board action; the fixing of penalty overtime rates by statute; and the application of minimum-wage rates and standards to men as well as women.[12]

To help facilitate progress in legislation, the United States Department of Labor in 1946 revised its standard draft bills for a State minimum-wage law and a State wage and hour law. The Department has long made available draft legislation for use of State labor officials, organized labor, citizen groups, and others interested in safeguarding wage levels through the enactment of legislation fixing a floor to wages. The recent drafts take into account current legislative trends and reflect recent thinking in this field, based on long administrative experience. Both bills would accomplish essentially similar objectives: Coverage of men as well as women; establishment of a statutory rate in addition to wage boards; and provision for overtime pay. The essential difference in the two bills lies in the method used to bring men under minimum-wage coverage: The wage and hour bill covers men directly in all provisions; the minimum-wage bill applies primarily to women, with supplementary protection of men. On this point, the following statement is made in the memorandum issued by the Department to accompany the bills:

> In States where general public sentiment will support a bill with direct coverage of all workers, the wage and hour type bill may be preferred. In States where there is primary concern for alleviating the economic condition of women workers, the minimum wage bill may be found to be most feasible.

The Department also prepared draft amendments which would accomplish similar objectives in existing laws, and advocated that such laws be amended wherever possible.

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[11] Georgia, Kentucky, Louisiana, Massachusetts, Mississippi, Missouri, New Jersey, New York, Rhode Island, South Carolina, and Virginia.

[12] See Progress of State Minimum Wage Legislation, 1943–45, Monthly Labor Review for May 1946 (p. 736).

Provisions of State minimum-wage orders that became effective in 1946

State, industry covered, type of order, and effective date	Workers to which order applies	Hours to which rate applies	Minimum-wage rates for—	
			Experienced workers	Learners
Connecticut				
Mercantile trade (mandatory, Mar. 18, 1946; supersedes mandatory orders Nos. 7A and 7B of June 1, 1942).	Women and minors; men:			
	Full-time employees	36 to 44 per week [1]	$22 per week	$18 per week.
	Part-time employees	Less than 36 per week [2]	55 cents per hour	45 cents per hour.
	All employees [3]	Over 44 per week [4]	1¼ times employee's regular hourly rate.	1¼ times employee's regular hourly rate.
District of Columbia				
Public housekeeping (mandatory, Jan. 1, 1946; supersedes mandatory order No. 4 of May 8, 1938).	Women and minors:			
	Hostesses, telephone operators, hatcheck girls, elevator operators, cashiers, clerical workers, and all similar workers.	40 to 48 per week [5]	$23 per week	
	Counter girls, salad girls, food checkers, cooks, bus girls, and all similar workers.	do [5]	$22.30 per week	
	Chambermaids, parlor maids, linen-room girls, cleaners, janitresses, charwomen, vegetable girls, dish and glass washers, kitchen help, and all similar workers.	do [5]	$19.60 per week	
	Workers in the 3 preceding classifications.	Less than 40 per week [6]	50 cents per hour	
	Waitresses	36 to 48 per week [5]	$17.90 per week; $22.30 where tipping is not allowed.	
		Less than 36 per week [6]	50 cents per hour	
	Employee working split shift, or having spread of hours beyond 11, or both.		60 cents per day in addition to the applicable minimum wage.	
Laundry, dry cleaning, and dyeing (mandatory, July 8, 1946; supersedes mandatory order No. 5 of July 5, 1938).	Women and minors	Over 16 and including 44 per week	$22 per week [7] [8]	
		Over 44 and including 48 per week [9]	55 cents per hour [8]	
		16 or less per week	55 cents per hour [8]	
Massachusetts				
Clerical, technical, and similar occupations [10] (directory, Oct. 15, 1946; rescinds mandatory order No. 24 of Aug. 1, 1941).	Women and minors; men:			
	Employees (other than messengers)	9 a day, 48 per week [11]	60 cents per hour [12]	55 cents per hour. [12]
	Messengers	do [11]	55 cents per hour	

See footnotes at end of table.

Provisions of State minimum-wage orders that became effective in 1946—Continued

State, industry covered, type of order, and effective date	Workers to which order applies	Hours to which rate applies	Minimum-wage rates for—	
			Experienced workers	Learners
New Hampshire				
Retail trade (mandatory, Dec. 30, 1946; supersedes mandatory order No. 5 of Jan. 6, 1941).	Women and minors	10¼ per day, 54 per week (maximum for women and girls).	50 cents per hour	35 cents per hour.
New Jersey				
Laundry and cleaning and dyeing (mandatory, Oct. 23, 1946; modifies and supersedes mandatory orders No. 1 of July 11, 1938, and No. 4 of May 6, 1940).	Women and minors:			
	Occupations other than clerks—			
	Zone 1 [13]	10 per day, 54 per week (maximum).	50 cents per hour [14]	
	Zone B [13]	do	45 cents per hour [14]	
	Clerks	30 to 48 per week	$22 per week	
		Less than 30 per week [15]	At hourly minimum rate applicable to nonclerical workers.	
	Minors under 18	8 per day, 40 per week	do	
North Dakota				
Public housekeeping (mandatory, May 6, 1946; supersedes order No. 1 of Dec. 16, 1932, as amended June 15, 1939).	Women:			
	Full-time employees—			
	Waitresses; counter girls.	Maximum: 8¼ per day, 48 per week in places with population of 500 or over; 9 per day, 58 per week elsewhere [16]	$17.43 per week; $75.53 per month.	
	If board furnished (21 meals) [17]	do [16]	$10.61 per week; $45.97 per month.	
	If board and lodging furnished	do [16]	$8 per week; $34.70 per month	
	If lodging furnished	do [16]	$14.83 per week; $64.27 per month.	
	Chambermaids; kitchen help	do [16]	$16.61 per week; $71.98 per month.	
	If board furnished (21 meals) [17]	do [16]	$9.79 per week; $42.42 per month	
	If board and lodging furnished	do [16]	$7.19 per week; $31.15 per month	
	If lodging furnished	do [16]	$14 per week; $60.72 per month	
	Part-time employees	For each hour worked	1/48th of weekly wage	
Mercantile (mandatory, May 9, 1946; supersedes order No. 3, reprinted Aug. 15, 1939).	Women:			
	Full-time employees	Maximum: 8½ per day, 48 per week in places with population of 500 or over; 9 per day, 58 per week elsewhere.[16]	$16.90 per week; $73.23 per month.	$14.04 per week; $60.84 per month.
	Part-time employees	For each hour worked	1/48th of weekly wage	1/48th of weekly wage.

Canning, dehydrating, and barreling operations (mandatory, June 8, 1946; supersedes mandatory order No. 2 of June 20, 1944).	Women and minors	10 per day	66 cents per hour	
		Over 10 to 12 per day	Time and a half	
		Over 12 per day	Double time	
		On seventh consecutive day:		
		First 8 hours	Time and a fourth	
		Over 8 to 12 hours	Time and a half	

Canning, dehydrating, and barreling operations (mandatory, June 8, 1946; supersedes mandatory order No. 2 of June 20, 1944).	Women and minors	10 per day	66 cents per hour	
		Over 10 to 12 per day	Time and a half	
		Over 12 per day	Double time	
		On seventh consecutive day:		
		First 8 hours	Time and a fourth	
		Over 8 to 12 hours	Time and a half	
		Over 12 hours	Double time	
Puerto Rico				
Construction (mandatory, July 1, 1946, and amendment Nov. 1, 1946).	Women and minors; men:			
	Operators of heavy machinery	8 per day, 44 per week [18]	$1.10 per hour	
	Craft, art, or trade masters with supervisory duties.	do [18]	90 cents per hour	
	Masons, senior electricians, senior plumbers, paper hangers, etc.	do [18]	75 cents per hour	
	Fitter, mason, rigger, drilling machine operator, carpenter, painter, etc.	do [18]	60 cents per hour	
	Mason helper, hand-driller, carpenter helper, janitor-messenger, machinery oiler, office clerk, and other semi-skilled groups.	do [18]		45 cents per hour.
	Unskilled workers or employees	do [18]		32 cents per hour.
	All employees	Over 8 per day, over 44 per week	Double time	Double time.
Rhode Island				
Retail trade (directory, Sept. 1, 1946; supersedes mandatory order No. 4 of Mar. 8, 1940).	Women and minors; men	36 to 44 per week	$22 per week [19]	$21 per week. [19 20]
		Less than 36 per week [21]	55 cents per hour	50 cents per hour. [20]
		Over 44 per week [22]	75 cents per hour	75 cents per hour.
		On seventh consecutive day	$1 per hour	$1 per hour.
		Employee working split shift [23] or having spread of hours beyond 12, or both.	75 cents per day in addition to the applicable minimum wage.	75 cents per day in addition to the applicable minimum wage.
	Students under 18	Less than 36 per week [21]		45 cents per hour.
Utah				
Retail trade (mandatory, Apr. 1, 1946; supersedes mandatory orders Nos. 2 and 3 of June 3, 1940, and amendment of June 25, 1940).	Women; minors, i. e., girls 18 and under 21, males under 18:			
	Salt Lake City and Ogden	40 to 48 per week [24 25]	$20 per week	$18 per week.
		Less than 40 per week at employer's election:	55 cents per hour, need not exceed $20 per week.	50 cents per hour, need not exceed $18 per week.
	Employees other than the vocational students and minors in group following.	4 or less per day	$2.20 per day	$2 per day.
	Vocational students and minors whose normal workday does not exceed 4 hours.	4 or less per day by reason of school attendance.	50 cents per hour	45 cents per hour.
	Employees working split shift		25 cents per day in addition to the applicable minimum wage.	25 cents per day in addition to the applicable minimum wage.
	Logan, Provo, Murray, and Tooele	40 to 48 per week [24]	$19 per week	$2 less than the rate for experienced.
	Bingham, Brigham City, Eureka, Helper, Midvale, Park City, and Price.	do [24]	$18 per week	Do.

See footnotes at end of table.

Provisions of State minimum-wage orders that became effective in 1946—Continued

State, industry covered, type of order, and effective date	Workers to which order applies	Hours to which rate applies	Minimum-wage rates for—	
			Experienced workers	Learners
Utah—Continued				
Retail trade—Continued	Women; minors, i. e., girls 18 and under 21, males under 18—Continued			
	American Fork, Bountiful, Cedar City, Lehi, Payson, Richfield, Smithfield, Spanish Fork, Springville, and St. George.	40 to 48 per week [24]	$17 per week	$2 less than the rate for experienced.
	All other towns having a population of 2,500 or less.	do [24]	$15 per week	Do.
Restaurant (mandatory, June 1, 1946; supersedes mandatory order No. 4 of Aug. 5, 1940).	Women; minors 18 and over: [26]			
	Salt Lake City and Ogden	48 per week [27]	$20 per week [28 29]	$19 per week.[29]
		2 or less per day [30]	55 cents per hour	
		Over 2 but less than 8 per day or less than 48 per week.[30]	41¾ cents per hour	
		Less than 8 per day or less than 48 per week.[30]		2 cents per hour less than rates for experienced workers.
	Provo, Helper, Price, Logan, Murray, and Tooele.	48 per week [27]	$19 per week [28 29]	$18 per week.[29]
		2 or less per day [30]	52½ cents per hour	
		Over 2 but less than 8 per day or less than 48 per week.[30]	39½ cents per hour	
		Less than 8 per day or less than 48 per week.[30]		2 cents per hour less than rates for experienced workers.
	Bingham, Brigham City, Eureka, Midvale, Park City.	48 per week [27]	$18 per week [28 29]	$17 per week.[29]
		2 or less per day [30]	50 cents per hour	
		Over 2 but less than 8 per day or less than 48 per week.[30]	37½ cents per hour	
		Less than 8 per day or less than 48 per week.[30]		2 cents per hour less than rates for experienced workers.
	American Fork, Bountiful, Cedar City, Lehi, Payson, Richfield, Smithfield, Spanish Fork, Springville, St. George, Nephi, and Vernal.	48 per week [27]	$17 per week [28 29]	$16 per week.[29]
		2 or less per day [30]	45 cents per hour	
		Over 2 but less than 8 per day or less than 48 per week.[30]	35 cents per hour	
		Less than 8 per day or less than 48 per week.[30]		2 cents per hour less than rates for experienced workers.
	All other towns having a population of 5,000 or less.	48 per week [27]	$15 per week [28 29]	$14 per week.[29]
Public housekeeping [31] (mandatory, July 1, 1946; supersedes mandatory order No. 6 of July 14, 1941).	Women 18 and over: [26]			
	Cities of over 10,000 population	8 per day, 48 per week [27]	47½ cents per hour; $22.80 per week.	45 cents per hour; $21.60 per week.
		Less than 48 per week [31 6]	50 cents per hour	47½ cents per hour.
	Cities of over 3,000 and under 10,000 population.	8 per day, 48 per week [27]	45 cents per hour; $21.60 per week.	42½ cents per hour; $20.40 per week.
		Less than 48 per week [31 6]	47½ cents per hour	45 cents per hour.
	Cities of under 3,000 population	8 per day, 48 per week [27]	40 cents per hour; $19.20 per week.	37½ cents per hour; $18 per week.
		Less than 48 per week [31 6]	42½ cents per hour	40 cents per hour.
Laundry, cleaning and dyeing industries (mandatory, Sept. 1, 1946; supersedes manda-	Women and minors:	(permitted only in emergencies).		
	In laundry industry	44 per week	$20.68 per week	$18.68 per week.
		30 to 44 per week	At the individual worker's regu-	At the individual worker's regu-

	Cities of under 3,000 population	8 per day, 48 per week [37]	40 cents per hour; $19.20 per week.	37½ cents per hour; $18 per week.
		Less than 48 per week [21] [3]	42½ cents per hour	40 cents per hour.
	Women over 21	(permitted only in emergencies).		
Laundry, cleaning and dyeing industries (mandatory, Sept. 1, 1946; supersedes mandatory order No. 5 of June 16, 1941).	Women and minors:			
	In laundry industry	44 per week	$20.68 per week	$18.68 per week.
		30 to 44 per week	At the individual worker's regular hourly rate.	At the individual worker's regular hourly rate.
		Less than 30 per week [6]	50 cents per hour	
	In cleaning, dyeing, and pressing industry.	44 per week	$24.20 per week	$22.20 per week.
		30 to 44 per week	At the individual worker's regular hourly rate.	At the individual worker's regular hourly rate.
		Less than 30 per week [6]	55 cents per hour	
	In both industries	Over 44 to 48 per week [22]	Time and a half	Time and a half.

[1] A full-time employee regularly working more than 36 but fewer than 44 hours a week who is required to work longer hours than his or her regularly established workweek must be paid for the excess hours up to 44 weekly at his or her regular rate of pay.

[2] Employee regularly reporting or called for work in any day must be paid at least 4 hours' wages at either the part-time rate or his or her regular rate, whichever is higher.

[3] Bona fide executive, administrative, and professional employees who receive a weekly salary of $50 or more are exempted from the overtime provision. For persons employed on a commission basis, the employer is given option of paying overtime either at a minimum rate of $1 per hour plus commission or at the actual overtime rate (1¼ times employee's salary and commission).

[4] For females in mercantile establishments, the maximum is 48 a week, except that under certain specified conditions longer hours may be worked in the week before Christmas and in cases of emergency.

[5] Maximum hours 8 a day, 48 a week for women in most occupations and for minors under 18. Workers whose hours are not limited by the hour law must be paid 5 cents an hour in addition to the legal hourly rate for each hour worked over 48 a week.

[6] Employee must be paid at least 4 hours' wages on any day called to work.

[7] Weekly wages may not be prorated unless the employee (1) takes time off at her own request; (2) begins full-time employment and works only part of a week when first employed; or (3) resigns after having been a full-time employee.

[8] No deduction, except as required by law, may be made from the minimum wage without written consent of the employee and written approval of the District of Columbia Minimum Wage and Industrial Safety Board.

[9] Maximum 8 a day, 48 a week.

[10] Includes any such work performed in or about a home, apartment, tenement, or room in a residential establishment.

[11] Maximum hours for women and girls and male minors under 18. The Massachusetts hour law, however, specifically exempts from its provisions (1) persons employed exclusively as personal secretaries; (2) persons declared by the Commissioneer of Labor and Industries to be employed in a supervisory capacity; and (3) professional personnel in hospitals.

[12] Employee must be paid at least 3 hours' wages on any day called to work.

[13] Zone A includes Bergen, Camden, Essex, Hudson, Mercer, Middlesex, Morris, Passaic, and Union Counties. Zone B includes Atlantic, Burlington, Cape May, Cumberland, Gloucester, Hunterdon, Monmouth, Ocean, Salem, Somerset, Sussex, and Warren Counties.

[14] In any week when 40 hours' work is not available to an employee, a 10-percent bonus must be added to the applicable minimum hourly rate if employee's total wage for the week is less than the amount she would receive for 40 hours at such applicable minimum hourly rate.

[15] Employees, other than minor students on days when schools are in session, must be paid at least 4 hours' wages on any day called to work.

[16] The employee must be free from interruption during the half-hour meal period required for each meal furnished to her on the premises. Any such meal period occurring during the working shift is to be considered part of the working hours in computing maximum legal hours and hourly wages.

[17] When 21 meals per week are not furnished to such employee, an allowance of 45 cents must be made to her for each meal not furnished.

[18] If employer has no work for employee but fails to notify him or her not to report for work on the next day. or if work is suspended within a 4-hour period, employee must be paid at least 4 hours' wages for the day.

[19] No reduction in wage allowed because of summer or seasonal schedules of store, or in week in which a holiday occurs.

[20] Before employing any worker at the inexperienced rate, employer must have secured a certificate from the State Minimum-Wage Commissioner. Order's rates for inexperienced workers are limited to salespersons.

[21] At least 4 hours' wages must be paid to an employee for any day he or she is called to work by employer and is able and willing to work 4 hours or more.

[22] Maximum fixed by law, 48 a week.

[23] Interruption of working hours, including any meal period, for 1½ hours or less does not constitute a split shift.

[24] Maximum hours for women, 8 a day, 48 a week; for minors under 18, 8 a day, 44 a week.

[25] An employee with a normal workweek of 40 hours or more who is voluntarily absent in any week so that she or he works less than 40 hours in that week must be paid at least 45 cents an hour if experienced and at least 40 cents an hour if inexperienced, for each hour worked.

[26] Employment of girls under 18 prohibited in this industry. Boys 16 and under 18 may be employed 8 hours a day, 44 hours a week. Persons under 18 may not serve beer to customers in restaurants.

[27] A half-hour meal period must be provided in any 8-consecutive-hour shift. Employees must be paid for this period.

[28] An employee who has had 1 year's continuous service with the employer must be granted a vacation of at least 1 week with pay.

[29] If an employee whose normal working time is 48 hours per week is voluntarily absent in any week, the basic minimum weekly wage may be prorated and employee paid for hours actually worked.

[30] Time during which employees are required to wait on the premises with no work provided by employer must be paid for at the individual worker's regular hourly rate.

[31] If such hours of work are at the employee's election, the minimum hourly rate is set at 5 cents less than that shown for this classification.

[32] Special permission must be secured from the Industrial Commission if work period exceeds either 48 hours a week or 8 hours a day.

State Laws Requiring Union Registration and Financial Reports[1]

TEN STATES have enacted laws which include provisions for union registration and the filing by unions of financial reports with State authorities. Seven States (Alabama, Colorado, Florida, Idaho, Kansas, South Dakota, and Texas) enacted such laws in 1943,[2] Massachusetts enacted its law late in 1946, and the laws of North Dakota and Delaware were passed early in 1947.

Each of these State laws except that of Massachusetts includes some form of regulatory provision with regard to internal union government or union activities, in addition to the registration and report-filing requirements. For example, the Kansas and Florida laws as originally enacted included a requirement for the annual licensing of union business agents; the Kansas law specified that business agents must be United States citizens; and the Florida law further stipulated that licenses should be limited to citizens who have resided in the United States for 10 years prior to applying for a license, and who are of "good moral character" as determined by the Governor, the secretary of state, and the superintendent of education.

The Texas law stipulated that all labor organizers must obtain identification cards from the secretary of state; that union officers must be elected annually by secret vote; that aliens should not hold union office; and that unions should be prohibited from charging fees which would create funds in excess of "reasonable requirements." The Colorado law required all unions to be incorporated and gave the State industrial commission power to make changes in amounts of union dues and fees which it considered to be unreasonable.

The Delaware Omnibus Act includes detailed specifications for the election of union officers and for making changes in the amounts of dues and assessments, and provides a maximum initiation fee ($25) for all unions. It further provides that union constitutions shall not "impose, limit, or prescribe terms and conditions of wages, rates of pay, hours of employment, quantity of work to be performed by union members, use of labor-saving devices, or conditions of work."

In addition to these regulations pertaining to the internal functioning of unions, most of these laws, as well as a number of other laws

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[1] Based on information obtained from the State agencies administering the laws, and on legislation and judicial decisions in effect April 1947.

[2] Amendments incorporated in 1943 in the State labor relations acts of Minnesota and Wisconsin charge the responsible officers of labor organizations with the duty of making complete annual financial reports to their members, but include no requirements for filing reports with State authorities. In the same year Utah added a section to its labor relations law which requires all local labor organizations annually to file with the State Industrial Commission the names and addresses of their officers and the locals' affiliation, if any, with national unions. The Utah law has no requirement with respect to financial reports.

in States which do not require registration, include regulatory provisions pertaining to picketing, strikes, boycotts, union-shop agreements, political contributions, and other union activities.

Legal Status of Registration Provisions

Several of these State laws requiring registration had already been invalidated in whole or in part, by the State supreme courts, and others were in the process of appeal in early 1947. In several instances there is uncertainty as to whether or not court invalidations which were directed specifically against other features of the laws are also applicable to the provisions requiring union registration and filing of financial reports.

The Colorado Peace Act of 1943 required compulsory incorporation of labor organizations and the filing of annual reports by every incorporated organization. When the State supreme court declared the incorporation feature unconstitutional, the report-filing requirement was automatically invalidated.[3] The Kansas act was a subject of litigation early in 1947, and, pending final decision, the State attorney general was not enforcing the provisions with respect to filing of financial reports. The Idaho law included provisions directed against unionization of agricultural and agricultural-processing workers, as well as the requirement that all unions file financial reports. The State supreme court declared this law invalid because it violated the State's constitutional provision that an act shall embrace but one subject having a unified purpose and clearly designed to accomplish a common aim.[4]

The South Dakota act also included restrictions against unionization of agricultural workers. The South Dakota circuit court validated the provisions requiring the filing of financial reports, although it declared the section relating to agricultural workers to be unconstitutional.

The Florida law was taken to the United States Supreme Court, which declared the licensing requirements pertaining to union business agents to be in violation of the National Labor Relations Act.[5] Although the Supreme Court indicated that the section requiring the filing of union reports was by itself not in conflict with the act, the penalty imposed for violation (enjoining the union from functioning as a labor union) was stated to be in conflict with the Federal act. The Florida secretary of state was making a study of this court decision in early 1947, to determine its effect upon the registration section of the law. In the meantime, no pressure was being exerted by the

[3] *AFL et al* v. *Reilly et al.*, 155P (2d), 145.
[4] *AFL* v. *Langley*, 168 Pacific (2d 831).
[5] *Hill* v. *Watson*, 325 (U. S.) 538.

State to obtain financial reports from the unions; some, however, had been filed before the Supreme Court decision was announced.

The United States Supreme Court, in 1945, held the section of the Texas act which required union agents to apply to the Texas secretary of state for an organizer's license, before soliciting members in a public meeting, to be in violation of the freedom of speech and assembly guaranties in the first amendment to the Constitution of the United States.[6] The section of the act dealing with filing of reports was before the State supreme court when this article was prepared in the spring of 1947. Some unions were sending in annual financial reports, but many were not complying with that requirement and no action was being taken against those who did not report.

The section of the Alabama law which deals with the filing of reports has not been challenged before the courts, and the unions are complying with the provision. In two instances of failure to file reports, the State brought suit for a $1,000 fine, and payment was made.

The Massachusetts law, enacted late in 1946, is being enforced without apparent protest from the unions. A number of questions arise, however, which may come before the courts for interpretation. Several organizations, for instance, refused to file reports on the ground that they are not labor unions; also, several international unions and regional offices of international unions whose headquarters are in Massachusetts, object to the filing of reports on the ground that they are not subject to State control.

The North Dakota and Delaware acts, passed in March and April of 1947, had not yet been put into operation when this article was written, and no action had been taken with regard to their constitutionality or enforceability.

Characteristics of Registration Provisions

The following discussion is limited to the five States (Alabama, Florida, Massachusetts, South Dakota, Texas), in which the laws are now being enforced or were in operation for a period of time before their legality was challenged.

Type of report required.—In Alabama the annual reports must give a list of the officers, the dates of their election to office and the salaries paid to each, the number of paid members on December 31, the total amount collected in dues, fees, and assessments, and an itemized list of the property owned by the organization, including cash, bonds, and money in the bank. On the expenditures side, reports must furnish an itemized list of payments to individuals and firms together with the purposes for which payments were made.

[6] *Thomas v. Collins*, 323 (U. S.) 516.

The Florida law does not require the reporting of union finances but does require that each union submit the name and address of the organization and the names and addresses of its officers, together with an annual registration fee of $1.

In Massachusetts the annual reports must show the union's scale of dues, the amount of initiation fees, fines, and assessments charged each member, the names and addresses of the organization's officers and the salary paid each, the total receipts, and an itemized list of expenditures.

The South Dakota law requires the reporting of total dues, fines, assessments, and other collections, classified separately, and an accounting of all expenditures including the salary of each individual officer.

The Texas law requires only a statement of the property and money which the union has on hand on January 1 of each year.

Confidential nature of reports.—The Alabama law specifies that the reports are confidential, except that they must be made available to individual members of the respective unions upon request. The Texas law specifies that reports shall be confidential and available only to State employees. The Florida, Massachusetts, and South Dakota laws specify that the reports are open to public inspection.

Use of Reports

None of the State agencies responsible for collecting the union reports have analyzed the information which they contain or prepared summaries for publication. In States which have made the reports open to public inspection, there have been very few requests from employers, union members, or others for permission to check over any of the reports. In a few instances, however, reports showing the salaries of union officers have been used to dispel charges that officers were receiving excessively high salaries, and in one instance it was reported that several unions expressed concern about the amount of the salary listed for a particular officer.

Attitude of Organized Labor

Practically all the national unions issue financial reports, which are available to anyone who consults their convention proceedings. The reports of local unions are not usually available to outsiders, because only a few of the larger locals publish their reports. It is customary, however, for locals to submit financial reports to members at their annual meetings.

Although unions follow the practice of submitting financial reports to their members, organized labor officially opposes legal compulsion

for registration and filing of reports with government agencies. Fundamentally, union objection to compulsory registration and submission of reports is based on the fear that this will serve as a wedge for repressive action—that registration is only the first step, which will be followed by government supervision and regulation of the internal affairs of unions.

Union Registration in Great Britain

Voluntary registration of unions has been in effect in Great Britain for many years. The Trade Union Act of 1871 provided that unions could register with the Registrar of Friendly Societies and thereby gain certain advantages with regard to the holding of property and tax exemptions for their benefit funds.

If a union chooses to register with the Friendly Societies, it must file an annual report of all its funds and a copy of its rules containing information as to the objects of the union, the methods of electing officers, provision for annual audits, and the methods of investing funds. The registrar acts only to see that the union's rules contain the provisions required by law; otherwise he has no power over the organization.

Practically all the larger trade-unions in Great Britain are registered, although a number of the smaller organizations are not. Probably three-fourths of the British union members belong to unions which are registered.

Legislative Restrictions on the Closed Shop[1]

"RIGHT TO WORK" laws, which have the effect of prohibiting the closed shop or other type of "union security" agreements, were enacted in 12 States this year. These States are Arizona, Arkansas, Delaware, Georgia, Iowa, Maine, North Carolina, North Dakota,[2] South Dakota (an amendment of a previous statute), Tennessee, Texas, and Virginia. Three of these States (Arizona, Arkansas, and South Dakota) also have amended their constitutions to accomplish this purpose. In addition, the Florida and Nebraska constitutions prohibit the closed shop, but these two States have not passed implementing legislation. Thus, 14 States in all have recently adopted constitutional or legislative provisions prohibiting the closed shop.

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[1] Prepared in the Division of Labor Standards, U. S. Department of Labor, by Alfred Acee. At the time this article was prepared the following legislatures were still in session: California, Connecticut, Florida, Illinois, Massachusetts, Michigan, Missouri, Nebraska, New Hampshire, Ohio, Pennsylvania, Texas, and Wisconsin.

[2] In North Dakota the law will be held in abeyance pending a referendum to be held at the 1948 general election.

In 1946, a specific law outlawing the closed shop was enacted in South Dakota. This law was re-enacted in 1947. In 1943, a law was passed in Alabama declaring that every person shall be free to join or refrain from joining a labor organization. In New Mexico a bill proposing a constitutional amendment to prohibit the closed shop was passed in 1947 and will be submitted to the people at the next election.

Right to Work Legislation

Most of the laws which prohibit the closed shop provide that the right to work shall not be denied or abridged because of membership or nonmembership in a labor union. The Arizona law, which was passed this year in order to implement the existing constitutional amendment, provides only that "no person shall be denied the opportunity to obtain or retain employment because of nonmembership in a labor organization."

Generally, these laws also provide that a contract requiring membership or nonmembership in a labor union as a condition of employment or continuation of employment shall be unlawful. The Arizona law, however, provides that contracts of this type shall be unlawful only with respect to required membership in a labor union. Several of the acts provide that existing contracts shall not be affected. The North Carolina law is somewhat more detailed; it states that any agreement or combination between an employer and a union under which a nonmember is denied employment shall be "an illegal combination and conspiracy in restraint of trade or commerce." The South Dakota act declares any contract unlawful if, "by its stated terms, or by implication, interpretation, or effect thereof," it directly or indirectly denies, abridges, interferes with, or in any manner curtails the free exercise of the right to work.

The Delaware Labor Relations Act declares that it is not an unfair labor practice for any employer to refuse to grant a closed shop or all-union agreement. The law further provides that every contract under which a party promises to join or not to join a labor organization is contrary to public policy and shall not afford any basis for granting legal or equitable relief in any court of the State.

In addition to the usual prohibition of the closed shop and closed-shop agreements, some of the laws [3] contain provisions making it unlawful to require any person, as a condition of employment, to pay any fee or assessment to a labor organization. The Georgia law also regulates the check-off by making it unlawful for any employer to deduct any fee, assessment, or other sum of money to be held for or

[3] Delaware, Georgia, Iowa, North Carolina, and Virginia.

paid over to a labor organization unless made on an individual order or at the request of the employee, revocable at any time.

In some instances the laws contain provisions regarding coercion, picketing, or conspiracy in connection with anti-closed-shop provisions. Thus, in Arizona it is provided that "any strike or picketing to force or induce any employer to make an agreement in writing or orally in violation of this act shall be for an illegal purpose." In this State it is also declared unlawful for two or more persons to combine or conspire to cause the discharge of any person or to cause him to be denied employment because he is not a member of a labor organization. Under the South Dakota law any request, demand, or threat to persuade or coerce an employer or employee to enter into a closed-shop agreement is deemed a violation of the act. It is also unlawful to request any employee to join a labor organization, if such request is accompanied by threats.

The methods of enforcing the right to work or anti-closed-shop laws vary considerably, and in some cases the penalties are severe. Thus, in Arkansas any person, corporation, or association making a contract in violation of the act may be fined not less than $100 nor more than $5,000 for each offense, and each day the unlawful contract is in effect is deemed a separate offense. Seven States—Arkansas, Delaware, Georgia, Iowa, Maine, South Dakota, and Tennessee—provide that violations are punishable by fine or imprisonment. In Arizona, Delaware, Georgia, North Carolina, and Virginia, the workman may sue for damages, and in Arizona, Delaware, and Georgia injunction proceedings also may be brought. Contracts providing for closed shops are declared to be void and unenforceable under the laws of Arizona, Delaware, Georgia, North Dakota, and Texas. The North Dakota law has no other provisions for enforcement.

State Constitutional Amendments

Arizona, Arkansas, Florida, Nebraska, and South Dakota have amended their constitutions to prohibit the closed shop and other types of union-security agreements. A proposed amendment to the constitution of New Mexico will be voted upon by the people at the next election. In Arizona, Arkansas, and South Dakota, legislation has been adopted to implement and enforce the constitutional amendments.

These amendments, except in Arizona, provide that the right of persons to work shall not be denied or abridged on account of membership or nonmembership in any labor union or labor organization. In Arizona the amendment merely states that the right of persons to work shall not be denied or abridged because of membership in a labor union.

Regulatory Legislation

In addition to the statutes and constitutional amendments which specifically prohibit the closed shop, some of the State laws which were enacted prior to 1947 to regulate the activities of labor organizations contain restrictions with regard to the closed shop. Under the Colorado Peace Act, for example, a closed-shop agreement is prohibited unless voted for by three-fourths or more of the employees in a collective bargaining unit by secret ballot in a referundum conducted by the State Industrial Commission. The commission is also authorized to terminate such an agreement if it finds that the labor organization has refused unreasonably to receive any employee as a member.

The Kansas Union Regulatory Act and the Wisconsin Employment Peace Act also regulate closed-shop contracts. In Kansas such a contract is permitted by a majority vote of employees in a collective bargaining unit, and in Wisconsin by a vote of two-thirds of the voting employees. The Wisconsin law also authorizes the Employment Relations Board to terminate an agreement if it finds that the labor organization has unreasonably refused to receive any employee as a member.

Pending Legislation

Bills proposing to prohibit the closed shop, by means of right-to-work provisions, were pending (as of June 1) in California, Massachusetts, Michigan, Missouri, Nebraska, and Ohio. The Alabama Legislature convened on May 6 but recessed until June 3. The Legislatures of Kentucky, Louisiana, Mississippi, and Virginia were not scheduled to meet in 1947. However, a special session of the Virginia Legislature met in January and passed an anti-closed-shop law.

Recent Decisions of Interest to Labor [1]

Fair Labor Standards Act [1]

Validity of weekly guaranty contracts reaffirmed.—The United States Supreme Court has reaffirmed [2] the validity of the so-called "Belo"

[1] Prepared in the Office of the Solicitor, U. S. Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor nor to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

[2] *Walling* v. *Halleburton Oil Well Cementing Co.*, U. S. Sup. Ct.

wage-payment contracts which it upheld in 1942.[3] Under this type of contract the employees working a fluctuating workweek are paid a basic hourly rate at or in excess of the statutory minimum for the first 40 hours actually worked, and an overtime rate at time and one-half for all hours worked in excess thereof with a guaranty that the employees will not receive less than a certain amount per week regardless of the number of hours worked. However, the basic hourly rate is so related to the guaranteed flat sum that the employees are entitled to more than the guaranty only in workweeks in which the hours worked are considerably in excess of the statutory 40 hours (in this case 84 hours).

The Wage and Hour Administrator has contended that the contract rates were fictitious, and that overtime compensation should be based upon a regular rate computed by dividing the guaranteed salary by the number of hours worked during the workweek. In the *Belo* case the Supreme Court upheld the contract ruling that an employer and employee may by agreement set the employees' regular rate for overtime purposes at a figure lower than the employee's average hourly earnings, even though this results in permitting the employer to pay a fixed salary to employees whose hours of work vary from week to week.

The Supreme Court in the present case relied on its reasoning in the Belo decision and concluded once more that such contracts, when made in good faith, do not violate the overtime provisions of the Fair Labor Standards Act. The Court distinguished such contracts from those which have been declared invalid since the *Belo* case, involving so-called "split-day" plans.[4] Refusing to upset the Belo decision the Court stated: "Even if we doubted the wisdom of the Belo decision as an original proposition, we should not be inclined to depart from it at this time."

In a dissenting opinion, Mr. Justice Murphy contended that this ruling does not square with the overtime requirements of the act and with the long line of court decisions to the effect that the regular rate of compensation upon which overtime payments are to be based is the hourly rate actually paid to the employee for the normal, non-overtime workweek for which he is employed. He argued that the Belo decision was erroneous and should have been overruled.

Weekly wage plan without guaranty or stipulated hourly rate rejected.—In another recent decision of the Supreme Court [5] the wage plan in question established weekly wages which were stated to include both payments for the first 40 hours and time and a half for the hours in

[3] *Walling* v. *Belo Corp.*, 316 U. S. 624.
[4] See Monthly Labor Review, January 1947, p. 84.
[5] *149 Madison Avenue Corp.* v. *Assetta*, U. S. Sup. Ct., May 5, 1947.

excess of 40. The agreement provided that the employees' hourly rates were to be determined by dividing the employees' weekly earnings by the number of hours actually worked plus one-half for the numbers actually worked in excess of 40. Evidence disclosed, however, that, as the agreement was actually applied, only the hours an employee was scheduled to work, and the weekly wage for such scheduled work entered into the calculation of the regular rate, and therefore the hourly rate remained constant without regard to the number of hours actually worked.

The Supreme Court held that this agreement failed to satisfy the overtime requirements of the act. It ruled that the hourly rate derived from the application of the formula was not a regular rate within the meaning of the act, since it failed to take into consideration fluctuations in the number of hours actually worked. In distinguishing this case from the *Belo* and *Halliburton* cases the Court stated: "Unlike those cases there was here no provision for a guaranteed weekly wage with a stipulation of an hourly rate which under the circumstances presented could properly be regarded as the actual regular rate of pay."

Motor carrier exemption broadened.—The Supreme Court ruled [6] that employees, any "substantial portion" of whose activities effect safety of operations, are included in the exemption provided in section 13 (b) of the Fair Labor Standards Act. This section provides that "the provisions of section 7 shall not apply with respect to (1) any employee with respect to whom the Interstate Commerce Commission has power to establish qualifications and maximum hours of service pursuant to the provisions of section 204 of the Motor Carrier Act."

The Wage and Hour Administrator had ruled that at least 50 percent of the employee's time must be devoted to activities affecting the safety of operations before this exemption operates to remove him from the maximum hours provision of the act. This decision invalidates that rule. The Court stated that in the exemption in question Congress intended to provide complete freedom in the Interstate Commerce Commission to conduct its safety program for motor carrier operations. In line with its earlier decision, the Supreme Court, held that the Interstate Commerce Commission had the power to regulate hours and qualifications even where only a part of the worker's duties affect the safety of operations. Having that power, whether exercised or not, the employees are exempt, from section 7 of the Fair Labor Standards Act. It ruled that the interpretation of the scope of the exemption by the Wage and Hour Administrator had no effect.

In a dissenting opinion, Mr. Justice Rutledge argued that "Congress did not have in mind so expansive and destructive an exemption as a literal application of section 13 (b) (1) and the Court's ruling would

[6] *Levenson* v. *Spector Motor Service*, U. S. Sup. Ct., Mar. 31, 1947.

produce." He pointed out, further, that the majority's interpretation is conducive to litigation on the question of whether or not an employer who assigned an employee to duties affecting the safety of operations for a minute portion of the time did so in good faith or with a view to removing such employee from the protection of the act. He stated that the 50-percent rule applied by Administrator was the most workable solution, and the one most consistent with the intent of Congress.

National Labor Relations Act

Effect of violation of War Labor Disputes Act, State Act, and Minority Strike on Refusal to Reinstate.—A discriminatory refusal to reinstate strikers constitutes a violation of the National Labor Relations Act even though the strikers in question: (1) represented a minority of the employees, and instigated a wildcat strike, and (2) violated the strike notice provisions of both the War Labor Disputes Act, and a local State law. In so holding [7] a Federal circuit court affirmed a Board order directing the reinstatement of two employees who instigated a strike because of the employer's constant criticism following their activity in organizing the union and threatening a strike. The court rejected the employer's contention that these employees had forfeited the protection of the National Labor Relations Act because of the two conditions noted above.

Continued check-off invalidates election.—The National Labor Relations Board recently held [8] that an employer's continuing to check-off union dues, pursuant to a collective bargaining agreement after it had expired, invalidated an election in which that union was victorious over a rival organization. The Board reached this conclusion in spite of the fact that the evidence disclosed no intention on the part of the employer to influence the election, and the losing union had made no complaint at the time. In the Board's opinion the employees might reasonably have interpreted the employer's action as a continued recognition of the incumbent union, and this fact might well have prevented them from exercising a free choice in the election.

Employer's refusal to accept card check not refusal to bargain.—On the facts of this particular case the National Labor Relations Board held [9] that an employer does not necessarily commit the unfair labor practice of refusing to bargain with the majority representatives by rejecting the union's offer to prove its majority by a membership card check.

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[7] *Hamilton* v. *National Labor Relations Board*, U. S., C. C. A. (6th), Mar. 31, 1947.
[8] *In re Armour & Co.*, 72 NLRB 208, Mar. 13, 1947.
[9] *In re Roanoke Public Warehouse*, 72 N.L.R.B. 229, Mar. 20, 1947.

A union representing 16 of the 17 employees in the unit requested the employer to bargain with respect to a proposed contract. The employers questioned the union's majority, and the union offered to establish it by presenting signed membership cards. The employer indicated his unwillingness to rely on the cards and his desire to have a Board-conducted election. The Board held that in the circumstances this did not constitute a refusal to bargain, since there was no evidence of bad faith or of a desire to delay or hamper bargaining, a conclusion from which Member Houston dissented. The Board pointed out, however, that the conclusion reached on this particular case is not to be construed to mean that an employer may always demand an election, or that, in the presence of circumstances indicating bad faith, his refusal to accept membership cards as proof of a majority might not be evidence of a refusal to bargain.

Selective Training and Service Act

Protection of seniority limited to 1 year.—The United States Supreme Court has held [10] that the veteran's right to statutory restored seniority status under Section 8 of the Selective Training and Service Act, like his right to protection against discharge, is limited to the first year of his reemployment.

A veteran was, after a year, reduced in pay and seniority rating pursuant to a collective-bargaining agreement readjusting such factors for all employees. The Court, in this case, ruled that while the restored rights, including seniority rights, "could not be altered adversely by the usual process of collective bargaining or of the employer's administration of general business policy" for a period of 1 year, such alteration was not prohibited after the expiration of the year. It rejected the Government's contention that the 1-year limitation applies only to the prohibition against discharge without cause, and that the seniority and other rights extend indefinitely, or as long as the employment itself continues.

The Court specifically stated, however, that its decision was made without prejudice to the assertion of any rights, other than his rights under the Selective Training and Service Act, which the veteran might have as a result of any unlawful discrimination against the group of employees of which he was a member.

Reemployment rights of Federal employees not subject to judicial enforcement.—In a case [11] involving a claim by a veteran to be restored to his position with the Insular Police of Puerto Rico, a Circuit Court of Appeals held that a Federal district court has no authority

[10] *Trailmobile Co.* v. *Whirls*, U. S. Sup. Ct., Apr. 14, 1947.
[11] *Insular Police Commission* v. *Lopez*, C. C. A. (1st), Mar. 26, 1947.

to order reinstatement since the act does not provide for judicial enforcement of reemployment rights against the United States or its possessions.

Decisions of State Courts

New York: Picketing customer of disputing employer.—In line with a long series of decisions on this point in New York, a lower court recently ruled [12] that the union's picketing of a customer of the employer, who engaged in a labor dispute with the union, in order to persuade that customer to cease dealing with the disputing employer is protected by the State anti-injunction law. In this case a union of bakery workers picketed a restaurant which purchased their employer's product. The court stated that if the restaurant owner were a complete stranger to the dispute an injunction would issue, but found that there was a sufficient "unity of interest" between the baking company and the restaurant to sustain the peaceful picketing as a fair and proper means of bringing the dispute to the attention of the public.

Tennessee: Picketing by minority union to compel closed-shop agreement.—A Tennessee court held [13] that picketing by a minority union in order to compel an employer to enter into a closed-shop agreement is unlawful and may be enjoined. The court reasoned that the employer would have violated the National Labor Relations Act by signing the closed-shop agreement with a minority union, and that therefore the picketing, though peaceful, was for an unlawful purpose, and hence illegal.

Washington: International unions' power to take over local union limited.—An injunction was recently issued [14] by a Washington State court to prevent an international union from taking over the affairs of a local and expelling certain members, because action was taken without a hearing in compliance with the constitution of the international union. The theory of the court's action was that the exercise of this summary power was an unconstitutional deprivation of the property right of union membership without due process of law.

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[12] *Fields Restaurant Inc.* v. *Bernstein*, N. Y. Sup. Ct., N. Y. County, Apr. 15, 1947.

[13] *Chattanooga Blow Pipe and Roofing Co.* v. *Sheet Metal Workers*, Tenn. Ch. Ct., Hamilton County, Apr. 1, 1947.

[14] *Washington Local No. 104* v. *International Brotherhood of Boilermakers, etc.*, Washington Superior Court, King County, Mar. 10, 1947.

Placements and Employment Practices

Nonfarm Placements Made by Public Employment Offices in 1946[1]

PLACEMENTS MADE in nonagricultural jobs by public employment offices in 1946 fell to 5.5 million[2] from 9.8 million in 1945—a decline of nearly 44 percent. The total for 1946 (the first full calendar year after the end of World War II) approximated placements for 1941, but was only about half of the war peak of 11.4 million reached in 1944.

Manufacturing accounted for two-fifths of 1946 nonfarm placements, the service industries for another fifth. Declines from 1945 proportions occurred in manufacturing, transportation, and mining, but gains were registered in construction, trade, and service. Placements in manufacturing in 1946 were double the proportion of the total attained in 1940, although they represented a recession from the war peak—60.2 percent—reached in 1943 and 1944. Shifts in the percentage of total placements made by the principal divisions of industry from 1940 to 1946 are shown in table 1.

TABLE 1.—*Distribution of nonfarm placements made by public employment offices,[1] by industry division, 1940–46*

Industry division	Percent of placements						
	1946	1945	1944	1943	1942	1941	1940
Mining	1.0	1.5	1.5	1.1	0.6	0.6	0.7
Construction	11.5	6.7	6.3	10.7	23.2	20.0	17.7
Manufacturing	40.2	55.9	59.7	60.2	36.6	23.2	19.9
Transportation [2]	5.3	8.1	7.8	4.2	3.2	3.0	2.7
Trade	15.4	10.3	8.7	6.4	9.8	17.2	18.3
Service	20.4	11.1	9.4	9.8	17.8	30.7	36.2
Other [3]	6.2	6.4	6.6	7.6	8.8	5.3	4.5
All divisions	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Data are from U. S. Department of Labor, U. S. Employment Service, Reports and Analysis Division.
[2] Includes communication and other public utilities.
[3] Includes finance, insurance, and real estate, regular government agencies, government relief projects, forestry and fishing, and establishments not elsewhere classified.

[1] The public employment offices were returned from Federal to State administration on November 16, 1946, in accordance with an Act of Congress, approved July 26, 1946 (Public Law 549, 79th Cong., 2d sess.).

[2] The decline in the volume of placements in 1946 compared with 1945 was caused mainly by the change from wartime controls to normal peacetime operations. Through VJ-day manpower controls were in operation, and employers had to contact the U. S. Employment Service for workers or approval to hire. Following the rescinding of controls, placement possibilities became limited as a result of veterans exercising reemployment rights and a number of other factors.

Monthly placements in 1946, however, remained at a fairly high level, rising from some 420,000 in March to about 547,000 in October.

Classes of Placements

Occupational groups.—Of the major occupational groups in which nonfarm placements were made in 1946, unskilled labor (2.6 million) represented nearly half of the total. Service jobs accounted for about a fifth, semiskilled work 13 percent, and clerical and sales occupations 11 percent. Skilled jobs were less than 8 percent of the aggregate. In 1946 only slightly more than 71,000 placements were made in the professional and managerial group (1.3 percent).

In absolute numbers, each of the major occupational groups except service showed sharp losses in placements since 1945—50 percent or more in the case of skilled, semiskilled, and unskilled jobs, 41 percent in professional and managerial occupations, and 30 percent in the clerical and sales group. Only service placements approximated the total of 1.1 million attained in 1945.

Relative proportions of placements made in the principal occupational groups in 1945 and 1946 are shown in table 2.

TABLE 2.—*Nonfarm placements made by public employment offices,*[1] *by class, 1945 and 1946*

Class of placement	Number		Percent of change	Percentage distribution	
	1946	1945		1946	1945
Nonfarm placements	5,518,631	[2] 9,799,185	−43.7	100.0	100.0
Major occupational groups:					
Professional and managerial	71,479	121,567	−41.2	1.3	1.2
Clerical and sales	625,382	896,444	−30.2	11.3	9.1
Service	1,091,421	1,104,082	−1.1	19.8	11.3
Skilled	424,347	1,051,065	−59.6	7.7	10.7
Semiskilled	727,217	1,454,522	−50.0	13.2	14.8
Unskilled and other	2,578,785	5,171,505	−50.1	46.7	52.9
Race:					
White	4,200,800	7,921,410	−47.0	76.1	80.8
Nonwhite	1,317,831	1,877,775	−29.8	23.9	19.2
Sex:					
Men	3,853,299	6,838,640	−43.7	69.8	69.8
Women	1,665,332	2,960,545	−43.7	30.2	30.2
Veteran status:					
Veterans	[3] 2,033,127	[4] 1,194,578	70.2	36.8	12.2
Nonveterans	3,485,504	8,604,607	−59.5	63.2	87.8
Handicapped	213,814	299,622	−28.6	[6] 100.0	[6] 100.0
Veterans	[5] 138,512	[5] 134,842	−2.7	[6] 64.8	[6] 45.0
Other	75,302	164,780	−54.3	[6] 35.2	[6] 55.0

[1] Data are from U. S. Department of Labor, U. S. Employment Service, Reports and Analysis Division.
[2] Excludes 9,291 nonagricultural placements for which distribution by class was not reported.
[3] Includes 138,512 handicapped veterans also classified under handicapped.
[4] Includes 134,842 handicapped veterans also classified under handicapped.
[5] Includes the group of handicapped veterans also classified under veterans.
[6] Distribution of the handicapped only.

Race.—Placements of nonwhite workers in nonagricultural jobs in 1946 declined by 30 percent from the 1945 level to 1.3 million (against a decrease of 47 percent for white workers); these represented almost a fourth of aggregate placements for the year. Almost all of the

nonwhite placements again fell in the unskilled and service groups, with placements in unskilled occupations declining from 58 percent in 1945 to 45 percent in 1946, but service jobs increasing from 30 to 46 percent.

Women.—Placements of women in nonfarm jobs dropped by almost 44 percent from the 1945 level of nearly 3 million to less than 1.7 million in 1946, and approached prewar levels. Two-fifths of all women placed entered service occupations, against slightly over one-fifth in 1945. Clerical and sales opportunities increased slightly for women during 1946, accounting for more than a fifth of the aggregate of women placed. Proportional declines, however, were registered in skilled, semiskilled, and unskilled jobs. Total placements of men decreased in 1946 at the same rate as for women (43.7 percent), falling from 6.8 million to 3.9 million. For the second consecutive year, placements of women constituted 30 percent of the annual total.

Veterans.[3]—Nonfarm placements of veterans rose 70 percent in 1946 to 2.0 million [4] from the 1945 level of 1.2 million, and constituted more than a third of all placements made during the year, as contrasted with an eighth during 1945.

In all occupational groups except (1) clerical and sales and (2) service, the proportion of veteran placements exceeded those of nonveterans. In skilled occupations, veterans accounted for 11 percent—twice that of the nonveteran group. Only 8 percent of veteran placements was in the service positions, as contrasted with 27 percent for nonveterans. In the professional and managerial group, veteran placements exceeded 2 percent, as against less than 1 percent for nonveterans. In 1946 a smaller percentage of veteran placements was made in skilled and semiskilled positions than in the previous year, but an increased proportion in unskilled work and in clerical and sales occupations.

Handicapped.—Total nonfarm placements of the handicapped declined by 29 percent from approximately 300,000 in 1945 to about 214,000 in 1946. Veterans [5] constituted 65 percent of all handicapped persons placed in 1946, as against 45 percent in the previous year.

More than two-fifths (42 percent) of the handicapped placements made in 1946 were in unskilled jobs; 18 percent were in semiskilled occupations, 16 percent in the service group, approximately 12 percent in clerical and sales positions, about 10 percent in skilled occupations, and slightly under 2 percent in the professional and managerial field. These represented proportional increases over 1945 placements in

[3] Included in the 1946 totals are some 138,000 handicapped-veteran placements, and about 135,000 for 1945, which are also analyzed under handicapped placements.

[4] A policy of preferential treatment of veterans in referral was adopted by the Veterans' Placement Service Board in August 1945, and job development activities were intensified in behalf of this group.

[5] Included in the previous analysis of veteran placements.

clerical and sales occupations and in service jobs, but decreases in the skilled and semiskilled groups.

Measured by the national average for nonfarm placements of all classes of 1946 referrants, the percentages of placements of the handicapped were smaller in the service and unskilled groups, but greater in the skilled and semiskilled occupations, and they more than held their own in professional and managerial positions and in clerical and sales occupations.

Termination of Work of Federal FEPC

THE COMMITTEE ON FAIR EMPLOYMENT PRACTICE, which ended its work in June 1946, was established in the Office of Production Management by Executive order of June 25, 1941.[1] The order prohibited discrimination because of race, color, creed, or national origin, in Federal vocational and training programs for defense production, and also required that each defense contract negotiated by a Federal agency include a provision forbidding such discrimination by the contractor. The Committee (generally referred to as the FEPC) was directed to receive and investigate complaints of discrimination in violation of the provisions of the order and to take steps to redress valid grievances. It was also instructed to recommend to Federal agencies and to the President measures which it considered necessary or proper to carry out the provisions.

When the Office of Production Management was abolished (on January 26, 1942), the FEPC was transferred to the War Production Board. In May of the same year, the membership was increased by Executive order from 6 to 7. On July 30, 1942, the Committee was placed in the War Manpower Commission and made subject to the direction of that agency's chairman.

During the period of this Committee's existence, from July 1941 to May 1943, it "did yeoman service," according to the final report of its successor Committee, in a "new and controversial field." It devised policies and held public hearings to examine specific complaints of discrimination in employment.

By Executive order of May 27, 1943, a new Committee on Fair Employment Practice was set up as an independent agency in the Office for Emergency Management. It was given a full-time chairman and six part-time members chosen from labor, management, and the general public.

[1] United States. The Committee on Fair Employment Practice. First Report, July 1943-December 1944, and Final Report, June 28, 1946, Washington, 1945 and 1947. See also Monthly Labor Review, August 1941 (p. 398) and July 1943 (p. 32).

The new Committee was directed to recommend to the Chairman of the War Manpower Commission appropriate measures for bringing about the full utilization and training of manpower in and for war production, without discrimination because of race, color, or national origin.

Operations by the second Committee were extended to 15 field offices throughout the Nation (the former Committee was limited to a small staff in Washington). Although at first it relied upon Executive funds for the carrying on of its work, appropriations were twice made by Congress for its operation. In 3 years (to its termination in 1946), it handled some 8,000 complaints of discrimination in war industries and Government service, and held 30 public hearings.

Persuasion was held by the new agency to be its best working tool. It published procedural rules and regulations for handling of bona fide complaints, informal investigations, weighing by the Committee of complaints not adjustable in the field, and conduct of public hearings in exceptionally stubborn cases. Adequate notice was given to those requested to appear at a hearing, and they were given full opportunity to produce witnesses and to cross-examine. The agency had no power to penalize a violator. Its last recourse was citation of a recalcitrant to the President, which was done only twice in the 5 years of FEPC work.

The last phase of work was the period from VJ-day to the end of the fiscal year (June 30, 1946), during which the Committee, by Executive order, was directed to report to the President "with respect to discrimination in industries engaged in work contributing to the production of military supplies or to the effective transition to a peacetime economy."

In the final report, the Committee urged that steps be taken by the Government to "meet the evil of unequal opportunity among Americans." Although emphasis was placed upon the efficacy of informal negotiation, community educational efforts, and public hearings in dealing with instances of discrimination, the Committee expressed the belief that "no device will solve the problem short of the enactment by Congress of fair employment legislation."

New York City Antidiscrimination Council Begins Work

ORGANIZATION PLANS of the New York City Council of the State Commission Against Discrimination were completed on April 10, 1947, according to a statement by the council's chairman.[1]

[1] New York. State Commission Against Discrimination. Press release, New York, April 10, 1947.

Three committees were formed to investigate and combat discrimination in education, in employment, and in housing, respectively. Another committee was appointed to handle public relations. The council planned to provide, in addition, a special committee for work on the problems of discriminatory practices in medical education, care of patients, and policies concerning employment of nurses, orderlies, and others. Discrimination in these fields, it was stated, constitutes a vital problem, as it often affects admissions to nurses' training schools and appointments to hospitals as members of medical and surgical staffs and of out-patient departments.

A thorough educational program had been carried on by the State commission through a number of months to prepare for establishment of the council. According to the chairman of the new agency, "a fine background" existed at the time of its organization, and it would be equipped to do "an intelligent job in helping to prevent and eliminate discriminatory practices."

Formation of local councils of the State Commission Against Discrimination was effected in compliance with the State law against discrimination enacted in 1945, which gave the commission authority to create advisory agencies and conciliation councils, local, regional, or State-wide.

> The commission may empower them to study the problems of discrimination in all or specific fields of human relationships or in specific instances of discrimination because of race, creed, color, or national origin, and to foster through community effort or otherwise good-will, cooperation, and conciliation among the groups and elements of the population of the State, and make recommendations to the commission for the development of policies and procedures in general and in specific instances, and for programs of formal and informal education which the commission may recommend to the appropriate State agency. Such advisory agencies and conciliation councils shall be composed of representative citizens, serving without pay, but with reimbursement for actual and necessary traveling expenses; and the commission may make provision for technical and clerical assistance to such agencies and councils and for the expenses of such assistance.[2]

The local agencies formed earliest under this provision were in Buffalo and Syracuse. Albany and New York followed, and plans were reported as being under way in Westchester and Nassau Counties and in Rochester, Troy, and Ithaca.[3]

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[2] Laws of New York, 1945 (ch. 118).

[3] New York. State Commission Against Discrimination. Review of First Year's Operation of the New York State Law Against Discrimination, July 1945-July 1946, Albany, [1946].

Labor-Management Disputes

Controversies and Significant Developments, May 1947

WITH THE EXCEPTION of the telephone stoppage, strike activity continued at a relatively low level throughout May 1947. In the early part of the month approximately 25,000 steel workers in a dozen scattered steel plants were idle for a brief period pending settlement of contract negotiations, while on May 15, 10,000 Northwest metal-trades workers suspended work in a controversy over new wage terms. About the same number of building-trades workers in Detroit, and cement workers in 6 States, were also idle during most of the month.

Settlement of Telephone Stoppage

The Nation-wide telephone strike of approximately 340,000 workers was virtually ended by May 20, with the aid of Federal conciliators who had assisted the parties throughout the stoppage of more than 6 weeks. The strike involved the National Federation of Telephone Workers (Ind.) and several other unions against the American Telephone & Telegraph Co. and its associated companies, as well as a few independent companies. On May 20, the Association of Communication Equipment Workers, an NFTW affiliate representing an estimated 20,000 members in 42 States, concluded with the Western Electric Co. a 2-year contract providing an 11½-cent hourly wage increase—the equivalent of about $4.60 a week. A similar agreement had been reached 2 days earlier between the same company and 22,000 manufacturing workers belonging to the Western Electric Employees Association.

During the first month of the stoppage, which began on April 7, the NFTW and the Bell System remained deadlocked largely over the basic issue of local versus national or industry-wide bargaining. On May 6, NFTW President Joseph A. Beirne announced that local and regional affiliates were released from a rule requiring submission of all tentative agreements to the national NFTW policy committee for approval.

The first important agreement thereafter was reached on May 8, when a pact was worked out between the Long Lines Department of the American Telephone and Telegraph Co. and the American Union

of Telephone Workers, NFTW affiliate, providing for weekly wage increases from $2 to $5 per week. Settlements with other Bell companies which followed in the final 2 weeks of the stoppage fell within this range, while some agreements with independent companies included increases ranging from $2 to a maximum of $12 a week for a few employees of one company. "Fringe" items covered such matters as pensions, vacations, reporting time, and varied considerably from company to company. In many cases picket lines established around telephone exchanges by Western Electric employees were respected until the May 20 settlement, so that thousands of telephone employees stayed away from work despite the adjustment of their own disputes. Only a few thousand telephone-equipment manufacturing employees were idle after that date, and these returned to work by the end of the month.

Work Stoppages in April 1947

AFTER A 3-MONTH PERIOD in which idleness from labor-management disputes averaged about 1,100,000 man-days per month, the total loss in April 1947 rose to 7,750,000. This was the highest lost-time figure since May 1946. The controversy involving the telephone workers accounted for more than three-fourths of the month's idleness.

New stoppages rose from 325 in March to 460 in April and involved 600,000 workers. Including disputes which continued from earlier months, about 625 stoppages, involving 650,000 workers, were in effect during some part of April.

Work stoppages in April 1947 with comparable figures for earlier periods [1]

Month	Work stoppages beginning in month		Man-days idle (all stoppages)	
	Number	Workers involved	Number	Percent of estimated working time (all industries)
April 1947 [2]	460	600,000	7,750,000	1.1
March 1947 [2]	325	100,000	850,000	.1
April 1946	504	566,000	14,300,000	2.2
January to April, inclusive:				
1947 [2]	1,365	890,000	11,100,000	.4
1946	1,571	2,220,000	70,700,000	2.9
1945	1,326	660,000	2,830,000	.1
1935–39	936	401,000	5,440,000	----

[1] All known work stoppages, arising out of labor-management disputes, involving 6 or more workers and continuing as long as a full day or shift are included in reports of the Bureau of Labor Statistics. Figures on "workers involved" and "man-days idle" cover all workers made idle in establishments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

[2] Preliminary estimates.

Activities of the U. S. Conciliation Service, April 1947

THE CONCILIATION SERVICE terminated 1,391 cases during April 1947. This continued the upward trend in closed cases which began in March. Although the number of cases closed in April 1947 was greater than in the previous 2 months of 1947, it was not as great as the number of cases closed in April 1946. Compared with last year, there was an 18.9 percent decrease in the total number of dispute cases closed in April, and the decline in work stoppages was even greater. The 230 work stoppages cases terminated in April 1947 were 35.2 percent below the number terminated in April 1946.

During April, 80 arbitration decisions were rendered by Conciliation Service appointed arbitrators. In 8 of the 80 decisions rendered, basic contract provisions were involved; all of these included the question of wages, but 1 of the 8 included other contract provisions as well. The remaining 72 arbitration decisions involved grievances or the interpretation of existing contracts. Of these, 53 or 74 percent involved either discharge or lay off questions, or individual wages inequity allegations.

Cases closed in April 1947 by the United States Conciliation Service by type of situation and type of disposition

Disposition	Total		Work stoppages		Threatened work stoppages		Controversies		Other situations	
	Cases	Workers	Cases	Workers	Cases	Workers	Cases	Workers	Cases	Workers
All cases	1,391	414,091	230	73,510	578	203,878	415	107,931	168	28,772
Agreement of the parties	1,041	350,171	186	62,408	519	188,308	336	99,455	------	------
Case dropped—unable to adjust or controverted issue withdrawn	83	10,586	16	1,378	33	5,143	34	4,065	------	------
Referred to NLRB and other agencies	55	13,740	20	4,151	16	6,729	19	3,860	------	------
Referred to arbitration	41	10,755	8	5,573	10	3,698	23	1,484	------	------
Consent elections held union memberships verified	3	67	------	------	------	------	3	67	------	------
Decisions rendered in arbitration	[1] 82	18,269	------	------	------	------	------	------	82	18,269
Technical services completed	23	3,225	------	------	------	------	------	------	23	3,225
Miscellaneous services	63	7,278	------	------	------	------	------	------	63	7,278

[1] This figure includes two arbitration cases in which a settlement was reached by the parties before an arbitration decision could be rendered.

Prices and Cost of Living

Review of Prices, First Quarter 1947

PRICES AT ALL LEVELS of sale advanced to new heights in the first quarter of 1947 but evened off or declined after mid-March. The movement of the general commodity indexes was affected by two distinct sets of factors. Nonagricultural commodity prices continued to move up steadily throughout the quarter, an extension of the movement which had been going on since the end of the war. Prices for farm products and foods, however, fluctuated, leveling off or declining in January and rising sharply in February and March to record peaks. The sharp advance for these commodities was stopped in mid-March and agricultural commodity prices generally moved downward during the last 3 weeks of the quarter.

Fluctuations in the general indexes of wholesale and consumers' prices reflected the net effect of these two movements. The all-items consumers' price index was generally stable in January and February as declining food prices offset increases for other family living essentials. The all-commodity wholesale price index was stable in January but began moving up in February as bad weather and increased foreign demand pushed prices for farm commodities to new high levels. The table following shows changes in consumers' and wholesale prices for selected periods.

Throughout the quarter, much the same factors were operative in the economic situation as in the last quarter of 1946. Industrial production and employment generally were stable at high levels. Automobile production continued to rise and during the last weeks of the quarter exceeded the 100,000-a-week rate. Consumers' incomes rose to new high levels. Exclusive of automobile sales, however, retail sales appeared to be stable or declining in terms of both dollar volume and physical units. Significant shifts also occurred during the quarter in types of goods sold. Durable goods became more widely available and qualities of many articles improved. Clothing sales, however, did not reach expectations and some stores held pre-Easter clearance sales.

Prices for most groups of commodities averaged higher in March 1947 than in December 1946. Sharpest advances were for farm prod-

ucts, building materials, petroleum, and fats and oils. General primary market prices averaged 6 percent higher, and consumers' prices were 2 percent higher, in March than in December.

The Bureau of Labor Statistics index of spot market prices of 28 commodities rose sharply from mid-February to a peak on March 17, but declined slowly thereafter with lower prices for steel scrap, grains, and oils and fats. Declining prices for agricultural commodities also lowered the all-commodities wholesale price index after mid-March, but the decline to the end of the quarter was small.

Percent change in consumers' prices and in primary market prices, in specified periods [1]

Commodity groups	Percent change—					
	In last quarter, Dec. 1946 to Mar. 1947	In last 6 months, Sept. 1946 to Mar. 1947	In last year, Mar. 1946 to Mar. 1947	From end of war, Aug. 1945 to Mar. 1947	From wage base date, Jan. 1941 to Mar. 1947	From month before war in Europe, Aug. 1939 to Mar. 1947
Consumers' prices: All items	+2.0	+7.1	+20.0	+20.9	+55.1	+58.5
Food	+1.9	+8.8	+35.3	+34.5	+93.8	+102.7
Clothing	+4.4	+11.1	+20.4	+25.9	+83.0	+83.7
Rent		+.2	+.6		+3.8	+4.5
Fuel, electricity, and ice	+1.8	+2.8	+6.4	+5.6	+16.7	+20.6
Gas and electricity	+.2	+.5	−.8	−3.2	−5.4	−6.9
Other fuels and ice	+3.0	+4.4	+11.6	+12.0	+37.0	+48.0
Housefurnishings	+2.9	+10.1	+21.4	+24.9	+82.1	+81.2
Miscellaneous	+1.5	+6.4	+9.8	+11.0	+35.6	+37.6
Primary market prices: All commodities	+6.2	+20.6	+37.4	+41.5	+85.1	+99.5
Farm products	+8.6	+18.3	+36.9	+43.9	+155.0	+199.3
Foods	+4.7	+27.1	+53.2	+57.5	+127.4	+149.4
Hides and leather products	−1.2	+23.3	+45.7	+48.0	+70.5	+88.3
Textile products	+3.6	+11.1	+33.3	+40.2	+85.6	+105.9
Housefurnishing goods	+4.7	+10.7	+17.7	+20.4	+41.3	+47.0
Fuels and lighting materials	+4.9	+6.9	+18.6	+18.9	+39.8	+38.8
Metals and metal products	+4.4	+23.1	+29.7	+34.3	+43.9	+50.9
Building materials	+12.5	+32.7	+42.1	+50.7	+78.2	+98.1
Chemicals and allied products	+5.2	+34.3	+37.7	+38.7	+68.2	+78.2
Miscellaneous commodities	+5.9	+12.9	+20.6	+21.6	+49.5	+57.3
All commodities except farm products and foods	+5.3	+17.0	+28.5	+31.4	+55.8	+63.9

[1] In comparing retail and primary market price movements, the following differences between the consumers' price and primary market price indexes must be noted: The primary market index is based on prices of selected representative commodities of constant specifications. The consumers' price index is based on prices of selected goods and services purchased by moderate-income families in large cities, and reflects in part the effect of disappearance of lower-priced articles.

Farm Products and Foods

Food prices at all levels of distribution reached record levels in March. Primary market price advances of 10.7 percent during February and March for farm products and 7.3 percent for foods more than offset declines in the two preceding months. Retail food prices, which declined about 1 percent a month in December and January, also moved sharply upward, 3.9 percent, from mid-February to mid-March. In March, prices of farm products and foods at wholesale were 7.5 and 1.3 percent above the November 1946 peaks and foods at retail were 1.0 percent higher. After June 1946, the

last month of extensive Government price controls, prices of farm products and retail foods rose over 30 percent; wholesale foods, more than 48 percent. Compared with levels preceding the outbreak of World War II, farm products tripled in price and foods at retail doubled.

With the exception of dairy products and eggs, all of the major agricultural commodity groups participated in the price gains over the quarter. Grain and livestock prices increased most—25 and 11 percent, respectively. Principal factors contributing to the rise were (1) the acceleration of the Government purchase program for export relief, (2) increased speculative buying stimulated by the Government's export program, and reports, such as that of Herbert Hoover, on the continued great need for foods abroad, (3) unusually inclement weather, which retarded the spring season, inflicted damage on many winter crops, and increased the difficulties of already overburdened transportation facilities, (4) continued scarcities of some commodities, and (5) rising total income payments.

The Government's program for purchases of grain and grain products, expansion of which was made possible by excellent prospects for the winter crop, generally dominated agricultural markets in the first quarter. The export goal for grain and grain products to be shipped by June 30 was increased early in January to 550 million bushels, 150 million bushels above the original schedule set last July 1. Grain prices, which had weakened at the turn of the year because traders expected further declines, soon began to rise markedly. Between January and March, average prices of wheat advanced 26 percent to the highest levels in 30 years. Corn prices rose 30 percent in spite of record marketings, but prices remained below those paid for the previous crop. Prices of other grains also increased. Toward the end of the quarter several Government attempts were made to ease the upward pressure on prices. The Commodity Credit Corporation ceased its purchases of additional wheat after February 25 but continued to buy some flour. Some shifts in type of wheat and delivery points were permitted in Government contracts and margin requirements in grain futures trading were increased. The wheat market broke on March 18 and again a week later, but prices remained substantially above February levels. Prices of cereal and bakery products continued to advance during the quarter—7.8 percent at wholesale and 4.6 percent at retail. Retail price increases of at least 1 cent for a pound loaf of bread were fairly widespread throughout the country in March.

Prices of livestock rose 14 percent during February and March, as marketing fell off more than seasonally, a consequence of the unusually heavy shipments of animals immediately after decontrol on October

15, 1946. Hogs, extremely scarce because of the short spring crop, brought a record high price of $30 per hundred pounds at Chicago on February 25, 1947, surpassing prices paid for steers. The flat ceiling price of a year earlier had been $14.85. Prices of cattle also advanced, reaching near record levels. Despite continued scarcity, prices paid for livestock began declining in mid-March, as consumer resistance to high meat prices increased. Prices of meat in March were more than 10 percent higher at wholesale, and 5 percent higher at retail, than at the end of 1946.

With meat prices high, demand for poultry and eggs continued strong. Wholesale prices of live poultry advanced at the Chicago and New York markets over 12 and 16 percent during the quarter, while dressed poultry prices rose approximately 8 percent. Prices of eggs, which generally decline during the early months of the year, rose almost 8 percent at wholesale and 3 percent at retail from February to March. Production and shipments had been delayed because of bad weather. The Government had continued support buying of frozen and dried eggs. Demand stemming from the Easter holiday had been good and storage holdings were light. Prices of eggs, however, were well below the previous quarter.

Dairy products as a group declined more than 12 percent at wholesale and almost 7 percent at retail, in line with seasonally increasing milk production. Prices of butter moved irregularly upward, reflecting lack of storage reserves due to current high prices and the low carry-over from last year's production. In mid-March the average retail price of butter was 83 cents a pound, compared with 55 cents under ceiling controls a year ago.

Prices of fruits and vegetables moved upward more than 4 percent at wholesale and almost 8 percent at retail during the quarter. The major part of this increase occurred for fresh produce, and was affected by the approaching end of the season for many fruits and some vegetables. The Florida freeze in February damaged a large portion of the winter vegetable crop and some citrus trees. Prices of oranges which had been dropping rapidly early in the year under the pressure of a record crop, strengthened in February and March. In spite of large surpluses of old crop potatoes, prices moved upward in March with the first appearance of the new crop and continued Government support. This crop is expected to be considerably smaller than that of the previous year.

Average prices of fats and oils continued upward during the quarter, reflecting world shortages and higher replacement costs. Ceilings on sugar were raised again in January in accordance with the Cuban agreement which links United States purchase prices of raw sugar to increases in the Bureau's consumers' price and retail food indexes.

Prices for sugar at retail have increased about 3 cents a pound during the past year.

Hides and Leather Products

Weekly spot quotations for hides and skins declined sharply in January and averaged 12.6 percent lower in March than in December, and 15 percent below the November 1946 postwar peak. Both domestic and imported hides and skins participated in the January downward adjustment which was partially seasonal for domestic cattle hides and skins. The January decrease in cattle hide prices was attributed, in addition, to an unusually heavy slaughter of cattle and to tanners' belief that the demand for shoes had been curtailed by price advances. Packers' light weight cowhide and kip and calfskin markets rallied in February and March, but domestic shearling pelts and imported goatskins continued to decline. Unsatisfactory methods of salting appeared to lessen the value of the Amritzar goatskin shipments and tanners felt hesitant to pay high prices for this source of upper leather, since supplies of calf skins were improving. Demand for shearlings, used chiefly in winter apparel, declined seasonally.

Factory quotations for shoes rose less than 1 percent during the quarter, as consumer resistance to the higher prices of footwear was evidenced by declining retail sales. Retail prices of all types of footwear also continued to advance during the quarter, but not as sharply as the 13-percent increase reported for the final quarter of 1946. Retailers were replenishing shoe stocks cautiously, but apparently had not revived the prewar custom of semiannual sales for clearance of winter styles.

Clothing and Textile Products

The cost of clothing to consumers continued to increase in the first quarter, with March prices 4.4 percent above December 1946. Retailers' stocks of all apparel were greater than in any previous period since the beginning of the war and were featured in many instances by garments of prewar quality or better.

Women's coats and suits were reported by Bureau representatives to be higher priced and of continuously improving quality. Clearances and mark-down sales in many stores, however, reflected resistance of consumers to high prices and lowered demand for these garments.

Men's suit prices rose over the quarter, as manufacturers increased their prices to cover higher material and labor costs. Stocks in retail stores were much improved and soft woolen fabrics, which constituted

the greater production during the war, were steadily being replaced by hard finished worsteds.

Men's business shirts declined in price as most stores again were offering prewar standard shirts at prices which were lower than for the wartime qualities available in past periods. Work clothing, also more plentiful, was higher priced because of high material costs. Some stores reported a definite lessening in demand for work clothing and indicated that they were reducing mark-ups in an attempt to make the retail prices attractive to their customers.

Nearly all categories of women's apparel rose in price, as higher fabric and labor costs were passed on to consumers. Rayon dresses, cotton street frocks, and house dresses bore higher price tags as preticketed garments disappeared completely and dresses purchased in "free" markets required higher retail prices. Nightgowns and panties, stocks of which had not yet returned to normal levels, also continued to advance in price. Nylon hosiery appeared on store counters in adequate quantities and selections of shades for the first quarter since 1941, but often commanded prices above the former ceilings. Rayon stockings were gradually disappearing from the market, and sales of silk hosiery, even at reduced prices, fell below expectations.

Clothing prices at the primary market level advanced 2.5 percent as a result of higher material and labor costs. Overalls increased 9 percent. Tailored clothing, which utilized the higher-cost wool fabrics, rose about 5 percent. Knit underwear for men rose 2 percent and woven shorts increased 26 percent reflecting the high cost of cotton piece goods.

Raw cotton in 10 spot markets rose 8.4 percent in the first quarter of 1947 as stocks declined to the lowest end-of-March levels since 1929 and mill consumption remained well above the comparable quarter of last year. At present rates of consumption, stocks are expected to fall below 3,000,000 bales by July 1947, compared with 7,521,000 bales in July 1946. In the final week of March, spot quotations for $^{15}/_{16}''$ middling reached 36 cents a pound, the highest price since mid-October 1946.

Eager acceptance of nearly all varieties of cotton goods enabled spot prices to advance 8.3 percent above the December level, or nearly 48 percent above the ceiling prices in effect in March 1946. In addition to higher raw cotton costs, wage rates in cotton goods mills advanced about 10 percent. Termination of cotton-textile export controls on March 15 did not appear to cause any marked increases in fabric prices. However, it may have offset to some degree the potentially depressive effect of a consumer trend toward more discriminating buying which became increasingly evident during the quarter. Sheet-

ings and print cloths led the advance in cotton-textile prices. Coated products such as oilcloth, window shades, and artificial leather rose 2 to 10 percent, reflecting higher basic fabric costs. Heavy industrial fabrics such as ducks and drills, of which there are adequate inventories, remained at or near October ceiling prices, while kitchen toweling, cotton rope, and twine declined in price.

Continued upward revisions in the Commodity Credit Corporation selling prices for domestic wools to meet parity requirements resulted in increases of 3 to 8 percent over the quarter. At the end of March the selling prices for many grades were higher than the prices paid by the Government. Australian wools, currently favored for clothing uses over domestic types, responded to the higher levels for domestic grades and the scarcity of fine wools, and rose about 2 percent. Prices for South American wools decreased over the quarter. American importers found themselves unable to pay the high prices prevalent in the countries of origin and sales were made from stocks in this country, at prices below replacement costs.

Woolen and worsted piece goods rose 7 percent in the first quarter of 1947, reflecting both higher wage rates in the industry and increased raw wool prices. Worsted fabrics for men's apparel, for which there was a strong demand, registered increases up to 13 percent. Soft finished goods and women's wear woolens, for which there existed an oversupply, remained unchanged or advanced considerably less than most men's wear worsted goods.

Housefurnishings

Retail costs of housefurnishings increased 0.8 percent during the first quarter of 1947. Prices at the primary market level increased 4.7 percent. Prices at both levels of distribution reflected adjustments in price structure following the end of price control and the introduction by manufacturers of articles which were relatively less profitable under price control. Retail costs were held down to some extent by the appearance in the markets of lower-priced articles of upholstered furniture, radios, and mattresses than had been available during the past years and by the partial resumption of February furniture sales, discontinued during the war. Trade comment indicated that (1) inferior merchandise was not selling as it once did, (2) resistance was being felt on high-priced goods, (3) customers were less numerous and less eager, and (4) business in general had slowed down.

Prices of wool floor coverings increased about 5 percent at retail and remained unchanged at wholesale in the quarter under review. Several large producers of hard-surfaced floor coverings announced price increases late in March ranging from 5 to 10 percent to meet the sub-

stantially higher costs of linseed oil and higher freight rates. According to the head of one of the larger companies, hard-surfaced coverings will remain on allotment through 1947.

Substantial increases were reported in prices for sheets, pillowcases, and cotton blankets at the primary market level during the first 3 months of 1947. Prices were nearly 50 percent above those at the end of 1946 for these important household linens. During the same period, prices for woolen blankets rose 6 percent while part-wool blankets rose more than 10 times as much. By the end of the quarter consumers were able to find sheets, pillow cases, and towels on most retailers' shelves but usually at higher prices than at the end of 1946.

Prices for wood household furniture, wood office furniture, and bedding increased during the first quarter of 1947 at both retail and wholesale. Owing to the higher cost of materials and labor, manufacturers announced increases, but at the same time a number of companies announced better finishes on their products, improved construction, and refinements in design and style. With the exception of mahogany, prices for cabinet woods used by the furniture industry showed signs of leveling off after the price increases put into effect immediately after decontrol. Although walnut veneer production was 54 percent above the previous year, demand was greater than production. Stocks of upholstered furniture were more plentiful during early 1947 and retail stocks of case goods appear to have improved. There were indications that first quarter business was lower both in terms of dollar volume and physical units.

Several large manufacturers of bedsprings and mattresses increased prices during the first quarter for lower-priced items that had become unprofitable to produce. Only a comparatively small proportion of innerspring output was in the less expensive lines.

Retail and primary market prices for appliances and stoves continued to increase. Among the articles advancing in price were sewing machines, washing machines, ironers, stoves, electric irons, and radios. Appliances were moving rapidly into consumer channels, with some resistance on items whose prices were more than 10 to 15 percent above last fall. Sewing machines, stoves, electric refrigerators, and washing machines still were not plentiful. However, supplies of vacuum cleaners increased to such an extent that allocations to dealers, with the exception of one well-known brand, will be terminated by June 1, according to a spokesman for the trade. One large manufacturer announced a 25-percent cut for "one of its most popular" portable radios in February 1947.

Both retail and wholesale prices for dinnerware increased. Advances resulted from higher wages paid to potters in 12 States, effective February 1, and from the introduction of new patterns by leading

manufacturers following price decontrol. Fine china remained scarce and in great demand.

Residential Rents

On the basis of rent surveys in 17 of the 34 large cities, it was estimated that residential rents advanced fractionally during the first quarter of 1947. An increase of 0.2 percent during the quarter brought the rent index for the 34 large cities combined to 109.0 (1935–39=100) on March 15, 1947. Average rents rose above their 1946 levels in Baltimore, Boston, Memphis, Minneapolis, Mobile, New Orleans, Philadelphia, San Francisco, Seattle, and Washington, D. C. Rents in Los Angeles and New York remained unchanged, but there were decreases in Indianapolis, Jacksonville, Kansas City, Savannah, and Scranton.

After the decontrol of transient hotel rents by the Office of Temporary Controls on February 15, 1947, trade sources report that transient room rents increased about 10 percent.

Residential rent ceilings were still in force at the end of the quarter; the Senate Banking and Currency Committee rejected a proposed 10 percent general rent increase. Instead, the Senate Committee approved a bill to continue rent control until March 1, 1948, except for new construction and luxury residences. The bill also provided for local advisory boards with authority to increase rents or order decontrol on an area basis to be effective unless reversed within 30 days by the National Housing Expediter.

Although housing shortages were severe, there were indications that the volume of home sales continued to diminish, with some decline in sales prices reported. Tenant evictions resulting from the sale of houses declined continuously from their peak in the summer of 1946. During the first quarter of 1947, the rate of tenant evictions amounted to about half the rate prevailing in June 1946. At the same time, the volume of new residential construction dropped—82,000 private urban dwellings were started in the first quarter of this year, about 11 percent less than the 92,000 started in the first 3 months of 1946.

Miscellaneous Goods and Services

Retail costs of miscellaneous goods and services rose 0.6 percent in the first 3 months of 1947. Newspaper prices increased in a number of cities across the country, as scarcity of newsprint cut revenue from advertising. Public transportation rates increased in Philadelphia and Jacksonville. Motion picture admissions rose in some cities but were reduced in others in order to stimulate attendance. Prices

for beauty-shop services, which showed steady increases during the war years, were lower in some cities during the first quarter.

The cost of medical care continued to increase but at a much slower rate than during the war period. Most of the increases were limited to hospital rates. The cost of dry cleaning and laundry services increased during the quarter as establishments adjusted their prices to cover the surcharge permitted by OPA during the war years and to include continued cost increases. Residential telephone rates were higher in three eastern cities.

Tobacco products prices showed both increases and decreases at retail. New city taxes raised prices in some cities. Supplies increased in most cities so that sales shifted from single to multiple units. Some manufacturers of smoking and chewing tobacco effected price increases by reducing the packaged weight of their products. Tax-paid withdrawals of cigars in January were the highest for that month since 1924 but dropped in February to a level below that of a year ago. Declining real incomes and the relatively high price of cigars probably account for the lower cigar withdrawals in February. A few cigar companies lowered prices and at least one company announced the production of a new shape cigar.

Fuels and Utilities

Higher freight rates for coal and coke which took effect in January 1947 and sharp price increases for petroleum and petroleum products in March boosted the primary market price index for fuel and lighting materials 4.9 percent during the first quarter. These higher wholesale prices were reflected immediately at retail.

Higher costs also contributed to a 1.4-percent increase in realized prices for gas and a 5.2-percent increase in coke prices. Mine prices for anthracite advanced 1.1 percent during the quarter, while bituminous coal rose 3.4 percent. On January 1 new freight rates—15 to 30 cents higher a net ton—took effect on all shipments of coal and coke. These increases replaced the interim rates in effect since July 1, 1946. The Supreme Court upheld a lower court ruling that the United Mine Workers and John L. Lewis were in contempt of court by the work stoppage of last November. As a result, the Krug-Lewis agreement continued in effect until July 1, 1947, and coal production was at near record high levels during the quarter.

Crude petroleum and petroleum products which have advanced as a group more than 33 percent in the past year moved up 7.8 percent during the quarter. A 25-cent per barrel increase in crude-petroleum prices in March was immediately reflected in wholesale and retail prices of refined products. The more active buying of petroleum products was traceable to increased automobile production, conver-

sions from coal- to oil-burning equipment and increased export trade. Early in the quarter, fuel-oil retailers in New England and New York City, faced with heavy stocks, had engaged in a brief flurry of price cutting which stopped quickly when crude prices advanced.

Building Materials

Primary market prices of building materials rose about 12 percent during the first quarter, to about double the prewar level, and an all-time high. With the exception of cement, paint and paint materials, and structural steel, all the groups of building materials in March reached the highest levels on record. At the end of March, prices of paint and paint materials were less than 1 percent below the high of 1920; cement, 10 percent below; and structural steel 50 percent below its peak of June 1917.

The figures below show percent increases in prices of certain groups of building materials for specified periods.

	Percent increase in price from—		
	September to December 1946	*December 1946 to March 1947*	*August 1939 to March 1947*
All building materials	17. 9	12. 5	98. 1
Brick and tile	1. 8	1. 8	46. 3
Cement	. 4	5. 1	23. 0
Lumber	27. 5	18. 5	198. 9
Paint and paint materials	33. 2	13. 3	114. 5
Plumbing and heating	7. 2	2. 6	48. 7
Structural steel	0	6. 3	19. 0
Other building materials	8. 6	8. 9	60. 3

The supply situation for building materials generally showed marked improvement during the first 3 months of 1947; but some items continued very short. This was the result of a seasonal decline in building activity, a speed-up in production, and an improved labor situation. The Office of Temporary Controls, on March 31, removed most Government controls over production of lumber, softwood plywood, hardwood flooring, and millwork. Because of millwork shortages, however, the Office continued to channel certain sizes of western pine and Douglas fir shop lumber to millwork manufacturers. Premium payments also were terminated for all housing materials, except cast iron soil pipe and pig iron. Payments terminated during the quarter covered structural clay products, including sand-lime brick (originally scheduled to end May 31, 1947), gypsum liner, and convector radiation.

Largest price increases in the quarter were for lumber, which rose 18 percent in a strong sellers' market. Prices were generally regarded as being at about the same level as they were in the black market previous to decontrol. The advance was 30 percent for Douglas fir,

15 percent for southern and western pine, and 22 percent for oak flooring. There were scattered declines during the quarter, including sugar pine shop lumber and some lower grades of southern pine.

Lumber production in 1947 was expected by the manufacturers to equal or surpass the high 1946 rates. Hardwood flooring and plywood were still scarce, with production insufficient to meet current demands and fill the backlog of accumulated orders.

Average market prices for paint and paint materials advanced 13 percent in the quarter. Prepared-paint prices continued firm, but paint materials rose 8 percent. Increases of from 15 to 20 percent were reported for bone and carbon black, Prussian blue, red and white lead, litharge, and rosin, and of 10 percent for black iron oxide, lithopone, and linseed oil. Turpentine fell off 20 percent, as shortages of other materials limited paint production.

Structural clay products advanced 2 percent in the quarter. Recent surveys indicated a near balance between supply and demand, especially in concrete blocks and brick. The price of the former remained firm during the quarter; brick prices rose less than 2 percent. Prices of tile rose 6 percent.

Wholesale prices of plumbing and heating equipment rose less than 3 percent, or about a third as much as in the previous quarter. The 1946 output of this equipment was more than double that of the year before but did not yet meet demand.

Structural steel prices advanced about 6 percent and cement advanced 5 percent from December to March. These two commodities have risen less in price since 1939 than any other basic building materials.

Prices of other building materials as a group, rose almost 9 percent, about the same as in the preceding quarter. There were major advances for metal products. Locks rose 67 percent; butts and knobs, about 20 percent; metal pipe, 12 percent; and copper wire and sheets, 8 percent. Wholesale prices of millwork increased 8 percent and glass, 5 percent. Although production of cast-iron soil pipe rose, the unfilled orders and expanding seasonal demands were far in excess of supply.

Metals and Machinery

Primary market prices of metals and machinery continued to rise during the first quarter of 1947, but there were indications by the end of the quarter that the advance was beginning to level off. Average prices of metals and metal products, as measured by the Bureau's index, rose 4.4 percent in the first quarter of 1947 compared with a 7.2-percent increase in the last 3 months of 1946. Further sharp advances, particularly for iron and steel scrap and nonferrous metals,

caused quotations for these commodities to approach or even exceed their all-time peaks. In mid-March, the withdrawal of large consumers from the iron and steel scrap market caused the first weakening of scrap prices since the removal of price controls. Some producers of motor vehicles, iron and steel, and farm equipment announced price reductions late in the quarter.

The revision in the iron and steel price structure that had begun late in 1946 was virtually completed by the middle of January. Price increases were announced for tubing, structural steel, plates, and some low alloy items. Tin plate was advanced 75 cents per base box, followed by increased prices for tin cans for 1947 delivery. Near the end of the quarter some steel companies were beginning to revise their extra lists in order to bring them more in line with actual production costs. On some items, including plates, bars, and sheets, these revisions resulted in price reductions. Premium payments on housing nails expired on March 31, leaving only two of the bonus plans under the housing program in effect. Premium payments for pig iron and cast-iron pipe were scheduled to continue through June 30.

Prices for raw materials used in steel production continued the upward trend started late in 1946. Lake iron ore prices were advanced 50 cents per ton retroactive to January 1. Pig iron producers advanced their prices an additional $2.50 to $3 per ton because of increasing operational and material costs. Prices for ferrous scrap continued to move upwards as buyers bid up prices in remote areas. In March, No. 1 scrap at Pittsburgh reached a 30-year high of $38 as compared to $40.25 in July 1917. Toward the end of the quarter, scrap prices dropped as consumer resistance began to develop, and three railroads placed a ceiling on scrap sales in an effort to stabilize the market. At the same time, high prices and warmer weather were stimulating collections and the Government announced that large quantities of Government-held scrap would be made available to steel mills within 2 months.

Early in March, the domestic price of electrolytic copper was established at 21½ cents, completing a price advance started in January. This is the highest price recorded for copper since 1929 when quotations rose above 23 cents. Two price increases during the quarter brought lead to 15 cents at New York, an all-time peak. These higher prices led to the reopening of some marginal mines and the possibility of attracting increased foreign supplies.

The only weak spots in the market for nonferrous metals were in mercury and silver. Quotations for mercury dropped to the lowest point since August 1939 primarily because of rising imports, uncertainty as to the disposition of Government-held stocks and the future policy of the European cartel.

A silver users' buying strike early in the quarter caused the official price of silver to be cut from 82 to 70¾ cents. Demand in London for resale to India strengthened the market and raised the price to over 86 cents, but the imposition of an import ban by the India Government dropped the price to its earlier level. The scarcity of spot metal late in the quarter resulted in some strengthening of the market.

Smelter production of tin at the Texas City plant slumped because Bolivian producers were holding shipments in an effort to obtain higher prices. Near the end of March an agreement was reached for the purchase of Bolivian tin concentrates through 1947 at 76 cents a pound, f. o. b. South American ports, compared with 67 cents under the contract which expired December 31, 1946. In April, the price to consumers was established at 80 cents.

Prices of machinery and other fabricated metal products averaged higher in the first 3 months of 1947 than in the last quarter of 1946. Prices of machine tools and construction machinery rose approximately 3 percent during the quarter. Quotations for farm machinery were lower in March 1947 than in December 1946 as a result of price reductions instituted late in the quarter by one of the largest producers of this type of equipment. Average prices of motor vehicles remained virtually unchanged. Increases in prices of some makes of passenger cars in January were offset by lowered quotations for other types of passenger cars and trucks during February and March.

Chemicals and Allied Products

During this quarter, prices for chemicals and allied products continued to advance. At 132.2 percent of the 1926 average, the March index for this group was 5.2 percent higher than in December 1946 and 37.7 percent more than a year ago. The largest increases again were for fats and oils, 14 percent this quarter, compared with advances of 0.8 percent for drug and pharmaceutical materials, 2.4 percent for chemicals, 7.0 percent for fertilizer materials, and 2.9 percent for mixed fertilizers.

Primary market prices for fats and oils continued the advance which began with the removal of Government controls over production, prices, and distribution, starting in October 1946. During the first quarter of this year prices for crude soybean oil and inedible tallow rose 40.6 and 27.5 percent, respectively. World prices for copra, castor beans, peanuts, tung oil, and linseed oil reached record or near-record levels. (It is anticipated that present high prices will encourage supplies of vegetable oils, particularly of flaxseed and soybean, and tend to depress prices by late summer or fall.) Increased output of synthetic detergents were of help in meeting requirements of soap manufacturers.

March average prices for mixed fertilizers were 11.2 percent higher than prices a year ago and those for fertilizer materials were 24.3 percent higher. Increased wages, transportation, and other costs were responsible for price advances for phosphate rock, superphosphate, calcium cyanamid, and sodium nitrate. However, increased supplies of slaughter house byproducts were responsible for slight March declines in prices of granulated bones and animal tankage. While regional shortages of fertilizers were evidenced during the quarter, over-all supplies were at record levels. Shortages of boxcars and tankcars and large world demands, particularly for nitrogenous materials, interfered with domestic deliveries. Nevertheless, according to fertilizer tax tag sales, the amounts sold for the first 9 months of the current fertilizer year, from July through March, were at an all-time peak and about 7 percent larger than this period of last year.

Higher prices for a number of industrial chemicals, including epsom salts, borax, sodium and calcium compounds, metallic salts, acetic and fatty acids, and coal tar products, raised the March 1947 index for chemicals to 114.5 percent of the 1926 average. From March 1946 to March 1947 this index rose 18 percent, with most of the increase occurring after October 1946. For the January to March period, output was about 12 percent above that of the comparable months in 1946 and "well ahead of that for any previous quarter in the history of the industry." [1] While expansion in production was accompanied by a rise in stocks, inventories of chemicals were not unduly large and demand continued strong. Container shortages and lack of transportation facilities still hindered distribution. Raw material shortages also were responsible for scarcities of crude coal tar products, acetone and alcohols, which affected supplies of intermediates and finished products.

Following the sharp advances during the fourth quarter of 1946, primary market prices for drug and pharmaceutical materials advanced to bring the March 1947 level to 63.6 percent above a year ago. Increases for the quarter under review averaged less than 1 percent and were caused principally by higher prices for iodine salts, bismuth compounds, epsom salts, and ether. Scarcities and higher transportation and production costs also were responsible for price increases in a number of staple drug chemicals such as borax, boric acid, creosote, amino-acetic, and gluconic acids. Prices for nicotinic acid, niocinamide, sulfathiasole, and soda sulfathiazole, which have been declining over the years, were raised in line with the upward price adjustments made in recent months by producers of drugs and fine chemicals. Supplies of crude botanical drugs improved slightly

[1] Chemical Engineering (New York), April 1947 (vol. 54, No. 4), p. 311.

but still were relatively scarce. During the quarter, some price reductions occurred but these were principally confined to imported botanicals.

Paper and Pulp

Average March prices for paper and pulp were the highest since January 1921 but 31 percent below the September 1920 peak. Price advances, continuous for the past 12 months, averaged about 6 percent during this quarter and included practically every pulp and paper product. As of March 1947, prices for pulp were 43 percent, paperboard 40 percent, and paper 21 percent above the levels of a year ago.

Supplies and production of pulpwood, wood pulp, paper, and paperboard increased steadily and, for some segments of the industry, surpassed previous peaks, but demands continued high. The resulting pressure, supported by higher labor rates, transportation difficulties, and declining inventories in nonintegrated mills, caused rapid price advances and much higher quotations in spot markets than for contract sales. Prices for pulp were advanced by Canadian and domestic producers in January and announcements were made in March that higher quotations would prevail for the second quarter. These higher prices, coupled with shortages, permitted large waste-paper dealers to raise prices during this quarter by amounts ranging up to 15 percent for the inexpensive grades such as folded news, mixed waste, and heavy book and magazine. Wide price ranges continued to be reported for better grades of waste paper.

With pulp prices advancing an average of 13 percent during this quarter, March average prices for paper and paperboard were 3 and 12.5 percent higher, respectively, than those for December 1946. Among the paperboard products, jute liners and lined chipboard advanced about 17 percent; corrugating paper and plain chipboard, 13 percent. Book paper in March sold at 5.4 percent more than in December 1946 and kraft wrapping paper at 4.7 percent. Although contract prices for newsprint were not increased this quarter, extremely high prices paid for spot sales caused concern in newspaper publishing circles, and the supply situation became the subject of investigation by three congressional committees. In general, the production of paper and paperboard was maintained at record levels and indications of some buyers' resistance were limited to paper boxes in some areas.

Rubber and Rubber Products

Effective January 13, 1947, prices for crude natural rubber sold to United States manufacturers were advanced 3¼ cents per pound. The increase in the base price to 25¾ cents, the first rise since August

1941, was caused by higher purchase prices in the Far East agreed upon for the third quarter of 1946 and the inability of RFC to subsidize further importations. During this quarter, the Office of Rubber Reserve, RFC, also increased the prices of GR–S Black I and GR–S Black II, raised the uniform freight charges on shipments of rubber sold by it, permitted distributors of drummed GR–S latex to collect an increased freight charge from consumers, and reduced the prices of "off Grade A" GR–M and GR–M 10 and that of GR–I.

After considerable discussion, legislation was enacted extending Government controls over the use and production of rubber until March 31, 1948. The measure also permits, as of April 1, private trading in the purchase of rubber for United States consumption and thus ends the wartime arrangement whereby RFC was the sole purchaser and seller.

Average prices for tires and tubes advanced slightly during this quarter as manufacturers changed billing practices. The "add-ons" to net prices permitted by OPA were eliminated and list prices increased. Many manufacturers also lowered the price of the inexpensive truck tire with a cotton cord carcass as rayon cord tires became more plentiful. As a result of the record-high production of automobile tires, market reports indicated that, in some sections of the country, retail prices for first line casings were below previous ceilings.

The market for scrap rubber continued to be dull, with prevailing prices usually reported as nominal and slightly lower than those of the previous quarter. The limited demand for scrap rubber was caused by reduced buying by reclaimers, who were faced with increasing sales competition from plastics and synthetics, as well as by larger imports of natural rubber from the Orient. Higher freight rates coupled with low Akron selling prices also hindered activity in this market.

Indexes of Consumers' Prices in Large Cities, April 1947[1]

CONSUMERS' GOODS AND SERVICES for moderate-income families were a tenth of 1 percent lower in mid-April than in mid-March 1947, as compared with a 2-percent increase between mid-February and mid-March. As of April 15, 1947 the consumers' price index was 156.1 (1935–39=100). Retail prices for foods dropped, but prices for all other major groups of living essentials advanced during the month. In mid-April the consumers' price index was 19 percent higher than a year ago and 58 percent above the August 1939 level.

The retail food price index on April 15, 1947, was 188.0 Food prices have more than doubled since August 1939, the month before the outbreak of war in Europe, and have increased nearly a third during the past year.

The family food bill was 0.8 percent below the record high of March 1947, but was still more than 3 percent above mid-February. The previous peak in retail food prices was November 15, 1946; the April 15 prices are slightly above this peak. Food price movements during the March–April period varied considerably. Decreases were recorded for dairy products (4.6 percent) and meats (2.4 percent). Cereal and bakery products prices increased 3.6 percent, and fats and oils rose 4.0 percent. All other food prices advanced fractionally. The decrease in dairy products prices reflected seasonally increased supplies. All meat prices declined, with pork products leading. Meat production was maintained at high levels and wholesale prices weakened considerably. Flour prices over 9 percent higher, together with advances in bread prices, brought the cereals and bakery prod-

[1] The "consumers' price index" for moderate-income families in large cities, formerly known as the "cost of living index," measures average changes in retail prices of selected goods, rents, and services, weighted by quantities bought by families of wage earners and moderate-income workers in large cities in 1934–36. The items price for the index constituted about 70 percent of the expenditures of city families whose income averaged $1,524 in 1934–36.

The indexes are based on time-to-time changes in the cost of goods and services purchased by moderate-income families in large cities. They do not indicate whether it costs more to live in one city than in another.

Data relate to the fifteenth of each month except those for January 1941 in tables 1 and 2, which have been estimated for January 1.

January 1, 1941, is the wage base date for determining allowable "cost of living" wage increases under the Little Steel formula and under the wage-price policy of February 1946. January 1, 1941, indexes in tables 1 and 2 have been estimated by assuming an even rate of change from December 15, 1940, to the next pricing period.

Food prices are collected monthly in 56 cities during the first 4 days of the week which includes the Tuesday nearest the fifteenth of the month. Aggregate costs of foods in each city, weighted to represent food purchases of families of wage earners and moderate-income workers, have been combined for the United States with the use of population weights. In March 1943 the number of cities included in the food index was increased from 51 to 56, and the number of foods from 54 to 61.

Prices of clothing, housefurnishings and miscellaneous goods and services are obtained in 34 large cities in March, June, September, and December. In intervening months, prices are collected in 21 of the 34 cities for a shorter list of goods and services.

ucts group up 3.6 percent. Price increases for vegetable shortenings were the major cause of the increase in the fats and oils group.

Retail costs of clothing to moderate-income families rose slightly (0.2 percent) between March 15 and April 15, 1947. Prices were higher for men's clothing, particularly suits and topcoats, business shirts, and cotton hosiery. Prices for women's dresses and cotton gloves also rose in several of the 21 cities surveyed. Shoes for all members of the family continued to rise, but at a slower rate than in recent months. Shoe prices increased more than 20 percent after controls were eliminated. Work clothing prices declined in several cities as did nylon hose for women and rayon socks for men.

Housefurnishing prices increased 0.1 percent on the average between mid-March and mid-April. Decreases in some cities were reported for Axminster rugs, inexpensive quality living-room suites, innerspring mattresses and table model radios. Increases were shown for washing machines, gas ranges, and refrigerators. The reported reasons for the decreases were reappearance of lower-priced merchandise, lowered cost of available merchandise, sales and competitive markdowns, and store policy in line with the President's program.

TABLE 1.—*Index of consumers' prices for moderate-income families and percent changes, March 15, 1947, compared with earlier periods*

Group	Apr. 15, 1947	Mar. 15, 1947	Apr. 15, 1946	Aug. 15, 1945	Jan. 1, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ-day	Wage base date	Month before war in Europe
	Indexes 1935–39=100.0					
All items	156.1	156.3	131.1	129.3	100.8	98.6
Foods	188.0	189.5	141.7	140.9	97.6	93.5
Clothing	184.6	184.3	154.5	146.4	101.2	100.3
Rent	109.0	109.0			105.0	104.3
Fuel, electricity, and ice	118.4	117.6	110.4	111.4	100.8	97.5
Gas and electricity	92.5	92.2	92.6	95.2	97.5	99.0
Other fuels and ice	143.7	142.5	127.8	127.2	104.0	96.3
Housefurnishings	182.4	182.3	152.0	146.0	100.2	100.6
Miscellaneous	139.1	138.2	126.7	124.5	101.8	100.4
	Percent changes to April 1947					
All items		−0.1	19.1	20.7	54.9	58.3
Foods		−.8	32.7	33.4	92.6	101.1
Clothing		.2	19.5	26.1	82.4	84.0
Rent		0			3.8	4.5
Fuel, electricity, and ice		.7	7.2	6.3	17.5	21.4
Gas and electricity		.3	−0.1	−2.8	−5.1	−6.6
Other fuels and ice		.8	12.4	13.0	38.2	49.2
Housefurnishings		.1	20.0	24.9	82.0	81.3
Miscellaneous		.7	9.8	11.7	36.6	38.5

The increase of 0.7 percent in the index for miscellaneous goods and services was slightly larger than the mid-February to mid-March rise. This increase was led by a rise in the prices of gasoline, motor oil, and soaps in a large number of cities.

Fuel, electricity, and ice costs also rose 0.7 percent from mid-March to mid-April 1947, reflecting increases in fuel oil prices in three cities and scattered price increases for bituminous coal. Anthracite coal prices showed declines because of reintroduction of seasonal discounts.

Information on changes in residential rents was obtained from a small group of dwellings in 6 cities in April. On the basis of this information, it was estimated that the rent index for all large cities combined remained unchanged at 109.0 on April 15, 1947.

TABLE 2.—*Percent changes in consumers' price index from specified dates to April 15, 1947 by cities*

City	Indexes (1335–39=100.0)	Percent change to April 1947 from—					
	Apr. 15, 1947	Mar. 15, 1947	Apr. 15, 1946	Aug. 15, 1945	Jan. 1, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ-day	Wage base date	Month before war in Europe
Average	156.1	−0.1	19.1	20.7	54.9	58.3
Baltimore, Md	159.8	.1	19.8	20.5	58.7	61.9
Birmingham, Ala	161.4	−.4	20.8	20.5	58.9	63.9
Boston, Mass	149.3	−.7	17.9	18.8	50.7	53.8
Buffalo, N. Y	155.4	.1	18.4	20.1	52.5	57.8
Chicago, Ill	155.6	−.4	19.8	21.7	53.8	57.6
Cincinnati, Ohio	157.0	0	20.6	21.4	57.6	61.4
Cleveland, Ohio	159.2	0	20.0	20.5	56.1	59.2
Denver, Colo	155.6	.5	20.2	21.8	55.6	57.8
Detroit, Mich	156.5	0	17.1	19.3	55.0	58.9
Houston, Tex	158.6	1.0	23.9	24.5	55.5	57.5
Kansas City, Mo	151.0	.1	17.5	18.3	53.5	53.1
Los Angeles, Calif	157.4	.3	18.0	20.2	53.6	56.6
Minneapolis, Minn	151.3	−.2	19.6	21.1	48.6	51.8
New York, N. Y	156.6	−.5	17.2	20.5	55.0	58.2
Philadelphia, Pa	154.8	−.8	18.9	20.6	56.0	58.3
Pittsburgh, Pa	159.0	−.1	20.6	22.1	57.1	61.6
St. Louis, Mo	155.0	−.5	20.0	21.6	53.5	58.0
San Francisco, Calif	161.4	.7	20.4	21.8	58.5	62.5
Savannah, Ga	166.1	−.3	19.3	20.1	63.8	67.3
Seattle, Wash	159.0	.5	18.1	19.6	55.7	58.5
Washington, D. C	154.8	.1	17.5	20.1	55.0	57.0

TABLE 3.—*Percent changes in consumers' price index by cities and groups of items, from March 15 to April 15, 1947*

City	All items	Food	Clothing	Rent	Fuel, electricity, and ice			House-furnishings	Miscellaneous
					Total	Gas and electricity	Other fuels and ice		
Average	−0.1	−0.8	0.2	0	0.7	0.3	0.8	0.1	0.7
Atlanta, Ga		−2.5			0	0	0		
Baltimore, Md	.1	−.8	−.1		6.0	16.4	.3	.7	.8
Birmingham, Ala	−.4	−2.0	.7	[1] 1.8	0	0	0	−.8	1.1
Boston, Mass	−.7	−2.1	−.3		2.4	.8	2.9	.7	.6
Buffalo, N. Y	.1	−.3	.4		0	0	0	−.7	.7
Chicago, Ill	−.4	−1.2	−.8		.6	0	1.0	.5	1.0
Cincinnati, Ohio	0	−1.3	2.5		.9	0	1.4	1.6	.6
Cleveland, Ohio	0	−.1	.2	[1] −.2	0	0	0	−1.0	.6
Denver, Colo	.5	.5	−.5		0	0	0	.1	1.3
Detroit, Mich	0	−.2	−.3		−.2	−.6	0	.1	.5
Houston, Tex	1.0	1.5	1.4	[1] −.5	0	0	0	.2	.9
Indianapolis, Ind		.1			0	0	0		
Jacksonville, Fla		.5			0	0	0		
Kansas City, Mo	.1	.2	−.3		0	0	0	.2	.4
Los Angeles, Calif	.3	.1	.4		0	0	0	.5	.7
Manchester, N. H		−1.5			3.1	.9	3.8		
Memphis, Tenn		−.2			0	0	0		
Milwaukee, Wisc		−.8			−.1	−.3	0		
Minneapolis, Minn	−.2	−.9	.1		.1	0	.1	.6	.3
Mobile, Ala		1.0			0	−.1	0		
New Orleans, La		−.1			0	0	0		
New York, N. Y	−.5	−1.2	.2		.2	0	.4	−1.0	.3
Norfolk, Va		.4			0	0	0		
Philadelphia, Pa	−.8	−2.1	.1		0	0	0	.1	.7
Pittsburgh, Pa	−.1	−1.1	−.3	[2] .8	.5	−.1	1.1	.4	1.0
Portland, Maine		−1.8		[2] −.2	2.6	.2	3.4		
Portland, Oreg		1.7		[2] −.3	0	0	−.1		
Richmond, Va		−.3			0	0	0		
St. Louis, Mo	−.5	−1.9	.1		3.1	0	5.3	.2	.6
San Francisco, Calif	.7	1.1	.6		0	0	0	−.1	.4
Savannah, Ga	−.3	−2.0	−.4		4.9	0	6.6	−.3	1.9
Scranton, Pa		−.5			−1.1	0	−1.5		
Seattle, Wash	.5	1.1	.2		.4	0	.5	0	.1
Washington, D. C	.1	−.5	.4		.4	0	.6	.4	.6

[1] Change from August 1946.
[2] Change from September 1946.

TABLE 4.—*Indexes of consumers' prices for moderate-income families in large cities, 1935 to April 1947*

Year and month	Indexes (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941	105.2	105.5	106.3	106.2	102.2	107.3	104.0
1942	116.5	123.9	124.2	108.5	105.4	122.2	110.9
1943	123.6	138.0	129.7	108.0	107.7	125.6	115.8
1944	125.5	136.1	138.8	108.2	109.8	136.4	121.3
1945	128.4	139.1	145.9	108.3	110.3	145.8	124.1
1946	139.3	159.6	160.2	108.6	112.4	159.2	128.8
1946:							
Jan. 15	129.9	141.0	149.7	(1)	110.8	148.8	125.4
Feb. 15	129.6	139.6	150.5	(1)	111.0	149.7	125.6
Mar. 15	130.2	140.1	153.1	108.4	110.5	150.2	125.9
Apr. 15	131.1	141.7	154.5	(1)	110.4	152.0	126.7
May 15	131.7	142.6	155.7	(1)	110.3	153.7	127.2
June 15	133.3	145.6	157.2	108.5	110.5	156.1	127.9
July 15	141.2	165.7	158.7	(1)	113.3	157.9	128.2
Aug. 15	144.1	171.2	161.2	108.7	113.7	160.0	129.8
Sept. 15	145.9	174.1	165.9	108.8	114.4	165.6	129.9
Oct. 15	148.6	180.0	168.1	(1)	114.4	168.5	131.0
Nov. 15	152.2	187.7	171.0	(1)	114.8	171.0	132.5
Dec. 15	153.3	185.9	176.5	(1)	115.5	177.1	136.1
1947:							
Jan. 15	153.3	183.8	179.0	108.8	117.3	179.1	137.1
Feb. 15	153.2	182.3	181.5	108.9	117.5	180.8	137.4
Mar. 15	156.3	189.5	184.3	109.0	117.6	182.3	138.2
Apr. 15	156.1	188.0	184.6	109.0	118.4	182.4	139.1

[1] Rents not surveyed in this month.

Retail Prices of Food in April 1947

RETAIL PRICES OF FOOD in April 1947 in relation to those in selected preceding periods are shown in the accompanying tables.

TABLE 1.—*Percent change in retail prices of food in 56 large cities combined by commodity groups, in specified periods*

Commodity group	Mar. 15, 1947, to Apr. 15, 1947	Apr. 15, 1946, to Apr. 15, 1947	Aug. 15, 1945, to Apr. 15, 1947	Jan. 15, 1941, to Apr. 15, 1947	Aug. 15, 1939, to Apr. 15, 1947
All foods	−0.8	+32.7	+33.4	+92.2	+101.1
Cereals and bakery products	+3.6	+35.4	+40.6	+61.6	+64.2
Meats	−2.4	+52.6	+52.7	+100.4	+111.7
Beef and veal	−.3	+62.4	+64.2	+77.9	+95.4
Pork	−6.3	+79.0	+80.7	+136.4	+131.2
Lamb	−1.5	+49.5	+51.4	+109.2	+109.0
Chickens	−.7	+11.2	+12.6	+82.6	+87.2
Fish fresh and canned	−1.9	+17.9	+19.8	+119.9	+162.0
Dairy products	−4.6	+30.2	+34.1	+70.2	+92.2
Eggs	+.9	+28.0	+2.9	+81.0	+94.4
Fruits and vegetables	+.4	+7.8	+9.2	+114.8	+116.9
Fresh	+.7	+.5	+2.3	+114.9	+116.3
Canned	−.2	+34.1	+32.5	+88.8	+88.4
Dried	−.6	+59.1	+60.0	+170.8	+198.7
Beverages	+1.4	+51.5	+52.0	+108.5	+99.7
Fats and oils	+4.0	+80.7	+83.7	+183.7	+169.6
Sugar and sweets	+.4	+32.5	+41.6	+88.1	+87.6

TABLE 2.—*Indexes of retail prices of food in 56 large cities combined,*[1] *by commodity groups, on specified dates*

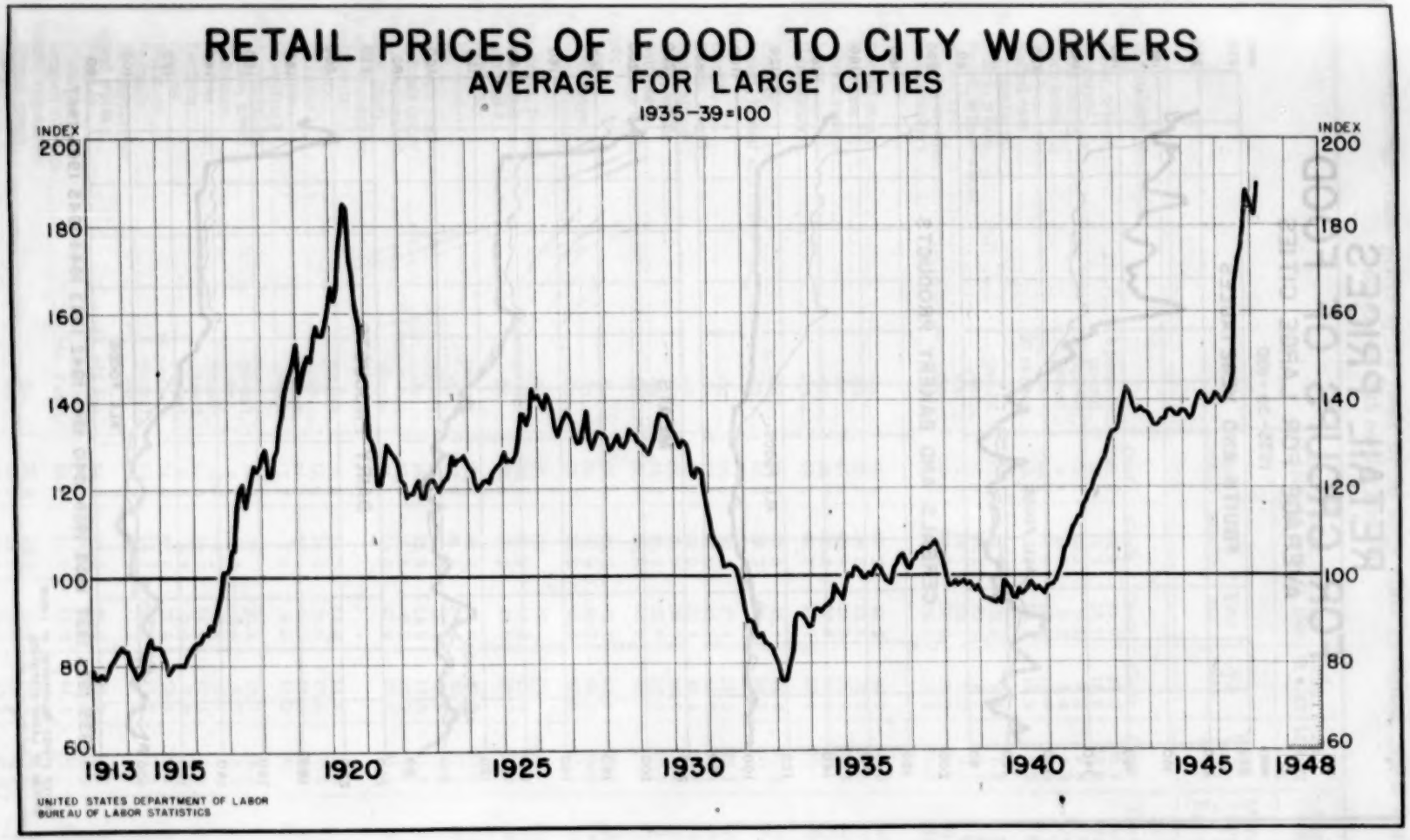
[1935–39=100]

Commodity group	Apr. 15, 1947	Mar. 15, 1947	Apr. 15, 1946	Aug. 15, 1945	Jan. 15, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ-day	Wage base date[2]	Month before war in Europe
All foods	188.0	189.5	141.7	140.9	97.8	93.5
Cereals and bakery products	153.4	148.1	113.3	109.1	94.9	93.4
Meats	202.6	207.6	132.8	131.8	101.1	95.7
Beef and veal	194.6	195.1	119.8	118.5	109.4	99.6
Pork	203.5	217.2	113.7	112.6	86.1	88.0
Lamb	206.5	209.7	138.1	136.4	98.7	98.8
Chickens	177.1	178.3	159.3	157.3	97.2	94.6
Fish, fresh and canned	261.0	266.0	221.3	217.8	118.7	99.6
Dairy products	178.9	187.5	137.4	133.4	105.1	93.1
Eggs	176.3	174.7	137.7	171.4	97.4	90.7
Fruits and vegetables	200.4	199.6	185.9	183.5	93.3	92.4
Fresh	200.7	199.4	199.8	196.2	93.4	92.8
Canned	172.6	172.9	128.7	130.2	91.4	91.6
Dried	269.7	271.3	169.5	168.6	89.6	90.3
Beverages	189.5	186.9	125.1	124.7	90.9	94.9
Fats and oils	227.8	219.1	126.1	124.0	80.3	84.5
Sugar and sweets	179.3	178.6	135.3	126.6	95.3	95.6

[1] Aggregate costs of 61 foods in each city, weighted to represent total purchases by families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights.

[2] The wage formulas apply to Jan. 1, 1941. Jan. 15, 1941, is the nearest date for which data on retail prices of individual foods have been computed.

RETAIL PRICES OF FOOD TO CITY WORKERS


RETAIL PRICES OF FOOD TO CITY WORKERS
AVERAGE FOR LARGE CITIES
1935-39=100
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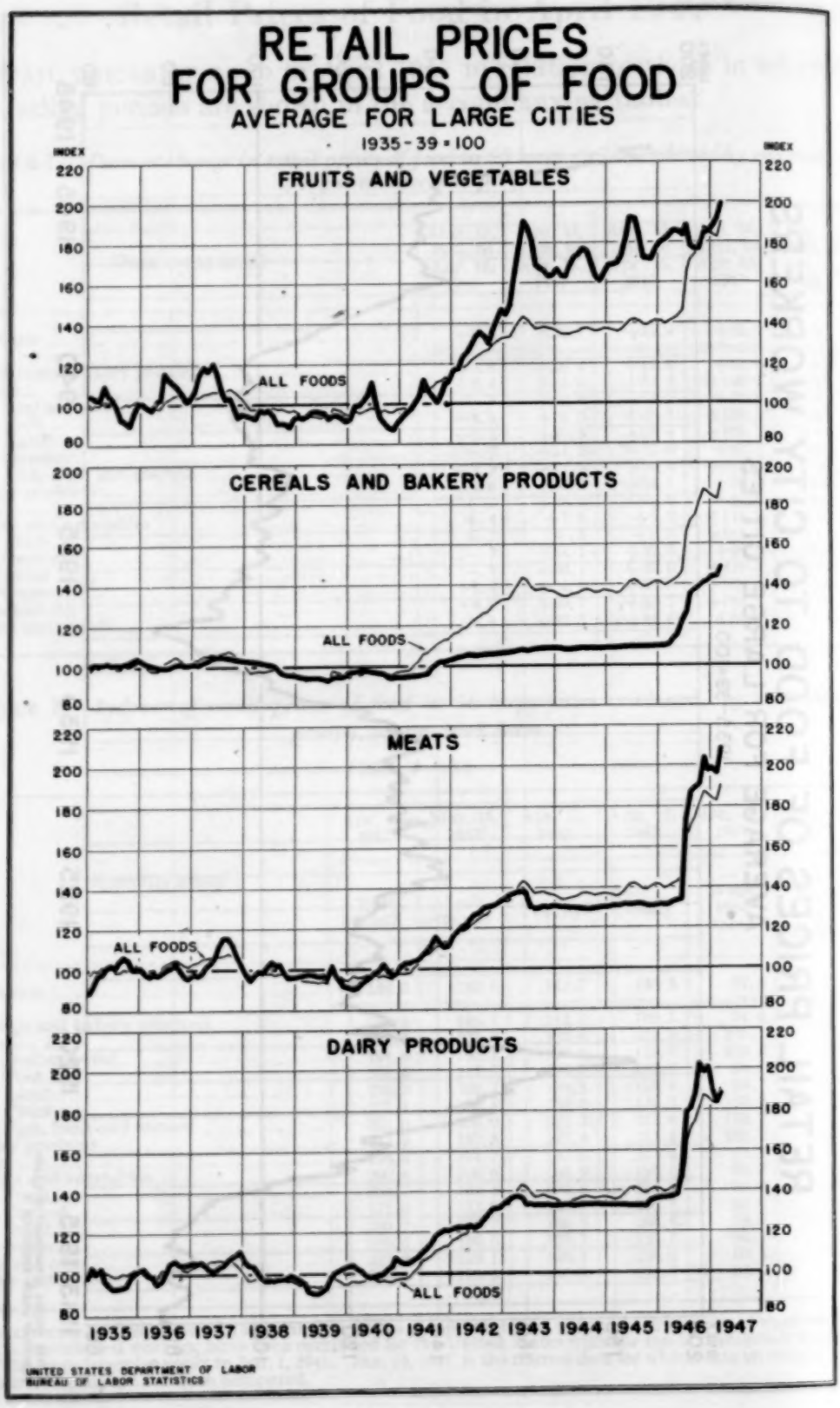
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS


RETAIL PRICES
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1935-39=100
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200
180
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120
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1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947
UNITED STATES DEPARTMENT OF LABOR
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TABLE 3.—*Average retail prices of 70 foods in 56 large cities combined, April 1947, compared with earlier months*

Article	Apr. 15, 1947 This month	Mar. 15, 1947 Last month	Apr. 15, 1946 Year ago	Aug. 15, 1945 VJ-day	Jan. 15, 1941 Wage base date [1]	Aug. 15, 1939 Month before war in Europe
Cereals and bakery products:						
Cereals:	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Flour, wheat, 5 pounds	48.5	44.5	31.9	32.2	20.7	17.9
Macaroni, pound	19.4	19.2	15.7	15.8	13.8	14.0
Corn flakes, 11 ounces	12.3	12.3	9.3	9.2	9.8	9.7
Corn meal, pound	9.1	9.0	6.5	6.4	4.2	4.0
Rice [2], do	16.9	17.0	13.0	13.0	7.9	7.5
Rolled oats, 20 ounces	13.7	13.5	13.1	13.0	8.9	8.9
Bakery products:						
Bread, white, pound	12.5	12.1	9.3	8.8	7.8	7.8
Bread, whole-wheat, do	13.5	13.1	10.0	9.7	8.7	8.8
Bread, rye, do	14.6	14.1	10.5	9.9	9.0	9.2
Vanilla cookies, do	39.8	39.0	30.0	28.6	25.1	[3]
Soda crackers, do	24.7	24.7	18.6	18.9	15.0	14.8
Meats:						
Beef:						
Round steak, do	68.4	68.2	41.2	40.9	38.6	36.4
Rib roast, do	56.3	56.5	33.6	33.0	31.5	28.9
Chuck roast, do	45.6	46.4	28.9	28.4	25.2	22.5
Liver, do	56.7	55.3	37.8	36.9	[3]	[3]
Hamburger, do	40.1	40.3	27.7	27.4	[3]	[3]
Veal:						
Cutlets, do	77.3	77.8	45.1	44.4	45.2	42.5
Roast, boned and rolled [2], do	55.9	58.2	35.6	34.3	[3]	[3]
Pork:						
Chops, do	66.6	72.1	37.4	37.2	29.1	30.9
Bacon, sliced, do	72.4	77.0	41.5	41.2	30.1	30.4
Ham, sliced, do	90.2	92.9	50.4	49.4	45.1	46.4
Ham, whole	66.1	70.9	36.0	34.5	26.2	27.4
Salt pork, do	44.2	44.2	22.6	22.0	16.7	15.4
Sausage [2], do	52.5	53.6	38.9	38.7	[3]	[3]
Lamb:						
Leg, do	60.6	62.0	40.7	40.5	27.8	27.6
Rib chops, do	69.4	69.9	46.3	46.0	35.0	36.7
Poultry: Roasting chickens, do	53.5	53.8	48.3	47.6	31.1	30.9
Fish:						
Fish (fresh, frozen), do	[4]	[4]	[4]	[4]	[4]	[4]
Salmon, pink, 16-ounce can	39.4	37.9	24.8	23.4	15.7	12.8
Salmon, red [2], do	60.5	59.2	43.9	39.7	26.4	23.1
Dairy products:						
Butter, pound	73.6	82.9	55.0	49.9	38.0	30.7
Cheese, do	61.3	61.1	38.4	35.7	27.0	24.7
Milk, fresh (delivered), quart	19.0	19.3	15.4	15.6	13.0	12.0
Milk, fresh (store), do	18.1	18.3	14.6	14.5	11.9	11.0
Milk, evaporated, 14½-ounce can	13.3	13.8	9.9	10.1	7.1	6.7
Eggs: Eggs, fresh, dozen	61.1	60.6	47.8	60.6	34.9	32.9
Fruits and vegetables:						
Fresh fruits:						
Apples, pound	14.5	13.5	14.8	13.1	5.2	4.4
Bananas, do	15.0	14.9	10.9	10.5	6.6	6.1
Oranges, dozen	44.1	43.4	45.0	51.3	27.3	31.5
Grapefruit [2], each	7.7	7.6	8.6	11.0	[3]	[3]
Fresh vegetables:						
Beans, green, pound	28.5	[3]	20.5	18.7	14.0	7.2
Cabbage, do	6.4	6.6	8.0	6.0	3.4	3.9
Carrots, bunch	8.4	9.2	8.8	9.1	6.0	4.6
Lettuce, head	11.6	12.7	11.4	12.5	8.4	8.4
Onions, pound	6.5	5.2	9.6	7.9	3.6	3.6
Potatoes, 15 pounds	74.4	67.9	77.8	73.8	29.2	34.4
Spinach, pound	12.6	14.9	10.2	11.6	7.3	7.8
Sweetpotatoes, do	10.2	10.2	11.4	11.4	5.0	5.5
Canned fruits:						
Peaches, No. 2½ can	32.3	32.3	28.0	27.2	16.5	17.1
Pineapple, do	[3]	[3]	26.4	26.3	20.9	21.0
Grapefruit juice, No. 2 can	10.9	11.0	14.0	14.4	[3]	[3]
Canned vegetables:						
Beans, green, do	16.6	16.5	13.6	13.2	10.0	10.0
Corn, do	18.1	18.1	14.8	14.8	10.7	10.4
Peas, do	16.2	16.1	13.6	13.2	13.2	13.6
Tomatoes, do	20.8	21.0	12.8	12.2	8.4	8.6
Soup, vegetable [2], 11-ounce can	14.3	14.3	13.3	13.2	[3]	[3]

See footnotes at end of table.

TABLE 3.—*Average retail prices of 70 foods in 56 large cities combined, April 1947, compared with earlier months*—Continued

Article		Apr. 15, 1947	Mar. 15, 1947	Apr. 15, 1946	Aug. 15, 1945	Jan. 15, 1941	Aug. 15, 1939
		This month	Last month	Year ago	VJ-day	Wage base date [1]	Month before war in Europe
Fruits and vegetables—Continued		*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Dried fruits: Prunes	pound	26.2	26.3	17.6	17.4	9.6	8.8
Dried vegetables: Navy beans	do	20.9	21.0	11.9	11.5	6.5	5.8
Beverages:							
Coffee	do	47.6	47.0	30.4	30.5	20.7	22.3
Tea	¼ pound	24.1	24.0	24.0	24.2	17.6	17.2
Cocoa [2]	½ pound	13.8	13.5	10.4	10.4	9.1	8.6
Fats and oils:							
Lard	pound	38.8	38.7	18.7	18.8	9.3	9.9
Shortening other than lard:							
In cartons	do	42.2	39.8	20.2	20.0	11.3	11.7
In other containers	do	51.2	46.0	24.8	24.5	18.3	20.2
Salad dressing	pint	42.0	40.3	28.3	24.2	20.1	(3)
Oleomargarine	pound	45.7	43.9	24.2	23.9	15.6	16.5
Peanut butter	do	36.0	35.5	33.3	28.6	17.9	17.9
Oil, cooking or salad [2]	pint	51.9	49.3	30.4	30.5	(3)	(3)
Sugar and sweets:							
Sugar	pound	9.7	9.7	7.2	6.7	5.1	5.2
Corn sirup	24 ounces	18.4	18.3	15.6	15.8	13.6	13.7
Molasses [2]	16 fluid ounces	21.0	21.0	20.3	20.4	17.3	17.6

[1] The wage formulas apply to Jan. 1, 1941. Jan. 15, 1941, is the nearest date for which data on retail prices of individual foods have been computed.
[2] Not included in index.
[3] Not priced.
[4] Composite price not computed.
[5] Not available.

TABLE 4.—*Indexes of average retail prices of all foods, by cities,[1] on specified dates*

[1935–39=100]

City	Apr. 15, 1947	Mar. 15, 1947	Apr. 15, 1946	Aug. 15, 1945	Jan. 15, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ-day	Wage base date [2]	Month before war in Europe
United States	188.0	189.5	141.7	140.9	97.8	93.5
Atlanta, Ga	194.6	199.6	140.8	142.1	94.3	92.5
Baltimore, Md	197.7	199.3	149.4	149.1	97.9	94.7
Birmingham, Ala	198.8	202.9	142.3	147.5	96.0	90.7
Boston, Mass	176.3	180.0	135.9	135.7	95.2	93.5
Bridgeport, Conn	180.4	184.6	135.2	137.4	96.5	93.2
Buffalo, N. Y	179.2	179.7	138.8	138.4	100.2	94.5
Butte, Mont	183.4	184.5	135.9	138.7	98.7	94.1
Cedar Rapids, Iowa [3]	197.3	195.6	144.9	145.3	95.9	
Charleston, S. C	188.0	189.2	138.9	139.7	95.9	95.1
Chicago, Ill	188.6	190.8	141.9	139.2	98.2	92.3
Cincinnati, Ohio	188.9	191.3	137.9	140.0	96.5	90.4
Cleveland, Ohio	195.0	195.1	144.5	145.6	99.2	93.6
Columbus, Ohio	176.2	177.0	133.3	134.0	93.4	88.1
Dallas, Tex	193.8	191.4	138.2	138.9	92.6	91.7
Denver, Colo	192.4	191.4	140.5	139.3	94.8	92.7
Detroit, Mich	182.7	183.0	140.1	138.4	97.0	90.6
Fall River, Mass	183.1	186.8	133.7	134.1	97.5	95.4
Houston, Tex	199.2	196.3	139.7	141.2	102.6	97.8
Indianapolis, Ind	187.9	187.8	137.7	137.7	98.2	90.7
Jackson, Miss. [3]	206.0	203.3	145.2	151.2	105.3	

See footnotes at end of table.

TABLE 4.—*Indexes of average retail prices of all foods, by cities,[1] on specified dates*—Con.

[1935–39=100]

City	Apr. 15, 1947	Mar. 15, 1947	Apr. 15, 1946	Aug. 15, 1945	Jan. 15, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ-day	Wage base date [2]	Month before war in Europe
Jacksonville, Fla	199.7	198.8	148.0	152.0	98.8	95.8
Kansas City, Mo	182.7	182.3	134.0	135.4	92.4	91.5
Knoxville, Tenn.[3]	223.4	225.2	159.7	160.6	97.1	----
Little Rock, Ark	193.0	190.8	141.2	140.4	95.6	94.0
Los Angeles, Calif	195.7	195.5	149.0	145.9	101.8	94.6
Louisville, Ky	183.6	183.9	133.8	135.0	95.5	92.1
Manchester, N. H	184.0	186.8	137.8	136.4	96.6	94.9
Memphis, Tenn	204.6	205.1	149.8	150.9	94.2	89.7
Milwaukee, Wis	185.4	186.9	138.3	139.4	95.9	91.1
Minneapolis, Minn	179.6	181.3	133.0	133.2	99.0	95.0
Mobile, Ala	201.6	199.6	148.6	152.3	97.9	95.5
Newark, N. J	183.3	185.3	143.1	143.4	98.8	95.6
New Haven, Conn	178.5	181.4	136.8	137.2	95.7	93.7
New Orleans, La	204.0	204.3	153.6	156.5	101.9	97.6
New York, N. Y	187.3	189.5	144.5	141.7	99.5	95.8
Norfolk, Va	200.5	199.8	147.2	146.1	95.8	93.6
Omaha, Nebr	183.2	183.2	134.6	131.8	97.9	92.3
Peoria, Ill	198.3	197.2	146.8	145.9	99.0	93.4
Philadelphia, Pa	181.9	185.8	139.6	138.9	95.0	93.0
Pittsburgh, Pa	189.9	192.0	142.5	141.3	98.0	92.5
Portland, Maine	181.4	184.8	135.4	135.7	95.3	95.9
Portland, Oreg	201.4	198.1	151.5	150.9	101.7	96.1
Providence, R. I	185.5	189.8	141.8	141.6	96.3	93.7
Richmond, Va	188.3	188.8	136.7	138.3	93.7	92.2
Rochester, N. Y	178.4	180.3	138.6	137.8	99.9	92.3
St. Louis, Mo	195.2	198.9	143.4	144.0	99.2	93.8
St. Paul, Minn	176.6	179.1	131.9	132.1	98.6	94.3
Salt Lake City, Utah	189.2	186.8	143.5	143.9	97.5	94.6
San Francisco, Calif	201.7	199.5	149.3	147.1	99.6	93.8
Savannah, Ga	208.9	213.1	155.7	157.5	100.5	96.7
Scranton, Pa	188.0	188.9	143.3	141.3	97.5	92.1
Seattle, Wash	196.4	194.3	146.3	145.8	101.0	94.5
Springfield, Ill	201.7	202.3	145.8	146.1	96.2	94.1
Washington D. C	189.4	190.3	142.2	141.7	97.7	94.1
Wichita, Kans.[3]	198.7	196.6	149.4	149.8	97.2	----
Winston-Salem, N. C.[3]	197.2	199.2	141.7	143.4	93.7	----

[1] Aggregate costs of 61 foods in each city, weighted to represent total purchases by families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights.

[2] The wage formulas apply to Jan. 1, 1941. Jan. 15, 1941, is the nearest date for which data on retail prices of individual foods have been computed.

[3] June 1940=100.

TABLE 5.—*Indexes of retail food prices of 56 large cities combined, 1913 to April 1947*

[1935-39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913	79.9	1927	132.3	1941	105.5	*1946*—Con.	
1914	81.8	1928	130.8	1942	123.9		
1915	80.9	1929	132.5	1943	138.0	July	165.7
1916	90.8	1930	126.0	1944	136.1	August	171.2
1917	116.9	1931	103.9	1945	139.1	September	174.1
1918	134.4	1932	86.5	1946	159.6	October	180.0
1919	149.8	1933	84.1			November	187.7
				1946		December	185.9
1920	168.8	1934	93.7				
1921	128.3	1935	100.4	January	141.0	*1947*	
1922	119.9	1936	101.3	February	139.6		
1923	124.0	1937	105.3	March	140.1	January	183.8
1924	122.8	1938	97.8	April	141.7	February	182.3
1925	132.9	1939	95.2	May	142.6	March	189.5
1926	137.4	1940	96.6	June	145.6	April	188.0

Wholesale Prices in April 1947

LOWER PRICES for agricultural commodities and hides and leather products caused a decrease of 1.2 percent in average primary market prices between March and April 1947. The Bureau of Labor Statistics general index of commodity prices in primary markets [1] dropped to 147.7 percent of the 1926 average—34.0 percent above 1946 and nearly twice the August 1939 level.

Prices of agricultural products declined 3.1 percent on the average. Hides and leather prices declined about 1½ percent during April. This decline, together with a sharp drop in prices of glazed kid early in the year which was not previously reported, reduced the group index for hides and leather products 4.7 percent to the lowest level since October 1946. Textile products also were fractionally lower—the first decline since early 1945. However, as all other major commodity groups advanced during the month, average prices of all commodities other than farm products and foods rose 0.5 percent. Price rises, ranging from 0.3 to 3 percent occurred in fuel and lighting materials, building materials, chemicals and allied products, house-furnishings goods, metals and metal products, and miscellaneous commodities.

In the farm-products group livestock and poultry declined nearly 8 percent, with greatly increased marketings. Hog quotations moved down more than 12 percent, calves 11 percent, and steers 4 percent.

[1] The Bureau of Labor Statistics wholesale price data, for the most part, represent prices in primary markets. In general, the prices are those charged by manufacturers or producers or are those prevailing on commodity exchanges. The monthly index is calculated from a monthly average of 1-day-a-week prices. It should not be compared directly with the weekly wholesale price index, which is designed as an indicator of week-to-week changes. Indexes for the last 2 months are preliminary.

Grain quotations also decreased as the Government temporarily withdrew from the cash grain market. Fresh fruits and vegetables increased slightly with the marketing of high-priced new crop potatoes. Prices of eggs, usually low at this time of year, advanced. Increased parity prices brought higher quotations for domestic wool. Foreign wool also was higher.

Among foods, dairy products dropped 5.6 percent because of seasonally increased production and resistance to high prices. Prices of meats, especially pork, also decreased substantially—5.1 percent—but they were still nearly 80 percent higher than in June 1946 before suspension of OPA controls. Average prices of cereal products rose, as higher prices of bread, corn meal, and breakfast cereals offset decreases for flour during April, owing to earlier increases in grain and flour costs. Among other foods there were substantial and continuing declines for lard, edible tallow, vegetable oils, black pepper, and coffee, but prices of cocoa beans, glucose, oleomargarine and sugar increased.

Prices of hides and skins and leather generally declined during the month, reflecting resistance to high prices of shoes. The fractional decline of 0.3 percent for textile products resulted chiefly from lower quotations for raw silk and for a few cotton fabrics. Finer count cottons continued to advance. Higher costs of raw wool caused price increases for worsted fabrics.

Fuel and lighting materials rose 2.7 percent as a group, with large increases for crude petroleum and petroleum products and a smaller advance for bituminous coal. Anthracite quotations decreased fractionally as the industry returned to its prewar practice of granting seasonal discounts on coal purchased during the spring.

Led by nonferrous metals in short supply, including tin, antimony, and copper, prices of metals and metal products as a group rose 0.3 percent. In addition there were increases for pig iron and some iron and steel products. Steel-scrap prices declined. Average prices of farm machinery and motor vehicles were fractionally lower for the month, reflecting declines which occurred late in March.

Most types of building materials shared in the 0.7-percent advance for the group during April 1947. Despite general improvement in supplies, lumber quotations were up 1.6 percent. Prices of Douglas fir, maple flooring, and the higher grades of southern pine increased. However, there were declines for lower grades of southern pine lumber and Douglas fir lath. Prices of brick and tile and cement increased about 1½ percent. Lower prices for naval stores, china wood oil and linseed oil caused a decline of 0.3 percent for the paint and paint materials group. Lead pigments and some other paint materials advanced.

Price increases for a number of commodities, owing to continued shortages and higher raw material costs, caused an average increase of 0.8 percent for chemicals and allied products. However, as supplies improved there were sharp declines for some of the inedible fats and oils, fatty acids, and pharmaceutical materials.

Housefurnishing goods rose 1.3 percent because of substantially higher prices for hard-surfaced floor coverings, wood household and office furniture, and stoves.

Higher prices of paper and pulp, boxboard and soap, reflecting shortgages and earlier increases in costs, were responsible for the slight advance of 0.3 percent for the miscellaneous commodities group. Cattle feed quotations moved downward sharply. Crude rubber prices also were lower.

TABLE 1.—*Indexes of wholesale prices by groups and subgroups of commodities, April 1947, compared with previous months*

Groups and subgroups	Indexes (1926=100)				Percent changes to April 1947 from—		
	Apr. 1947	Mar. 1947	Apr. 1946	Aug. 1939	Mar. 1947	Apr. 1946	Aug. 1939
All commodities	[1] 147.7	[1] [2]149.5	110.2	75.0	−1.2	+34.0	+96.9
Farm products	177.0	182.6	135.4	61.0	−3.1	+30.7	+190.2
Grains	199.8	203.3	137.0	51.5	−1.7	+45.8	+288.0
Livestock and poultry	199.2	216.0	135.1	66.0	−7.8	+47.4	+201.8
Other farm products	156.4	155.8	134.2	60.1	+.4	+16.5	+160.2
Foods	162.4	167.6	110.8	67.2	−3.1	+46.6	+141.7
Dairy products	148.8	157.6	116.3	67.9	−5.6	+27.9	+119.1
Cereal products	154.1	150.4	99.4	71.9	+2.5	+55.0	+114.3
Fruits and vegetables	142.2	141.5	138.2	58.5	+.5	+2.9	+143.1
Meats	196.7	207.3	110.3	73.7	−5.1	+78.3	+166.9
Other foods	147.6	152.8	97.7	60.3	−3.4	+51.1	+144.8
Hides and leather products	166.4	174.6	119.8	92.7	−4.7	+38.9	+79.5
Shoes	172.1	171.5	128.6	100.8	+.3	+33.8	+70.7
Hides and skins	178.1	192.2	117.6	77.2	−7.3	+51.4	+130.7
Leather	158.0	183.7	104.0	84.0	−14.0	+51.9	+88.1
Other leather products	137.7	137.7	115.2	97.1	0	+19.5	+41.8
Textile products	139.2	139.6	107.9	67.8	−.3	+29.0	+105.3
Clothing	133.0	133.0	117.4	81.5	0	+13.3	+63.2
Cotton goods	194.7	196.6	137.6	65.5	−1.0	+41.5	+197.3
Hosiery and underwear	100.8	100.8	75.5	61.5	0	+33.5	+63.9
Rayon	37.0	37.0	30.2	28.5	0	+22.5	+29.8
Silk	69.4	73.2	.....	44.3	−5.2	.....	+56.7
Woolen and worsted goods	129.1	127.5	112.7	75.5	+1.3	+14.6	+71.0
Other textile products	175.8	175.1	110.5	63.7	+.4	+59.1	+176.0
Fuel and lighting materials	103.4	[2] 100.7	86.1	72.6	+2.7	+20.1	+42.4
Anthracite	113.9	114.9	104.0	72.1	−.9	+9.5	+58.0
Bituminous coal	145.0	143.6	125.2	96.0	+1.0	+15.8	+51.0
Coke	155.4	155.2	133.5	104.2	+.1	+16.4	+49.1
Electricity	[3]	[3]	66.6	75.8	.....	.....	.....
Gas	[3]	84.9	79.7	86.7	.....	.....	.....
Petroleum and products	86.3	81.7	62.8	51.7	+5.6	+37.4	+66.9
Metals and metal products	[1] 140.3	[1] [2]139.9	108.8	93.2	+.3	+29.0	+50.5
Agricultural implements	116.6	116.8	98.6	93.5	−.2	+18.3	+24.7
Farm machinery	118.0	118.2	99.6	94.7	−.2	+18.5	+24.6
Iron and steel	127.6	126.9	107.4	95.1	+.6	+18.8	+34.2
Motor vehicles	[1] 148.8	[1] [2]149.2	112.8	92.5	−.3	+31.9	+60.9
Nonferrous metals	141.0	139.0	87.1	74.6	+1.4	+61.9	+89.0
Plumbing and heating	118.2	117.9	100.8	79.3	+.3	+17.3	+49.1

See footnotes at end of table.

TABLE 1.—*Indexes of wholesale prices by groups and subgroups of commodities, April 1947, compared with previous months*—Continued

Groups and subgroups	Indexes (1926=100)				Percent changes to April 1947 from—		
	Apr. 1947	Mar. 1947	Apr. 1946	Aug. 1939	Mar. 1947	Apr. 1946	Aug. 1939
Building materials	178.8	177.5	126.5	89.6	+.7	+41.3	+99.6
Brick and tile	134.5	132.4	119.9	90.5	+1.6	+12.2	+48.6
Cement	114.0	112.3	102.4	91.3	+1.5	+11.3	+24.9
Lumber	273.5	269.3	171.4	90.1	+1.6	+59.6	+203.6
Paint and paint materials	175.5	176.1	108.0	82.1	−.3	+62.5	+113.8
Plumbing and heating	118.2	117.9	100.8	79.3	+.3	+17.3	+49.1
Structural steel	127.7	127.7	120.1	107.3	0	+6.3	+19.0
Other building materials	143.7	143.5	112.8	89.5	+.1	+27.4	+60.6
Chemicals and allied products	133.2	132.2	96.1	74.2	+.8	+38.6	+79.5
Chemicals	119.5	114.5	97.1	83.8	+4.4	+23.1	+42.6
Drug and pharmaceutical materials	181.0	182.7	112.4	77.1	−.9	+61.0	+134.8
Fertilizer materials	101.2	101.8	81.9	65.5	−.6	+23.6	+54.5
Mixed fertilizer	96.7	96.3	86.6	73.1	+.4	+11.7	+32.3
Oils and fats	220.1	231.5	102.1	40.6	−4.9	+115.6	+442.1
Housefurnishing goods	127.4	125.8	107.5	85.6	+1.3	+18.5	+48.8
Furnishings	134.4	131.4	112.1	90.0	+2.3	+19.9	+49.3
Furniture	120.0	120.0	102.9	81.1	0	+16.6	+48.0
Miscellaneous	115.7	115.3	95.7	73.3	+.3	+20.9	+57.8
Automobile tire-tubes	73.0	73.0	73.0	60.5	0	0	+20.7
Cattle feed	208.9	238.4	159.6	68.4	−12.4	+30.9	+205.4
Paper and pulp	152.5	145.1	113.9	80.0	+5.1	+33.9	+90.6
Rubber, crude	52.0	52.9	46.2	34.9	−1.7	+12.6	+49.0
Other miscellaneous	123.3	122.2	99.2	81.3	+.9	+24.3	+51.7
Raw materials	160.1	163.2	122.2	66.5	−1.9	+31.0	+140.8
Semimanufactured articles	144.5	145.9	101.1	74.5	−1.0	+42.9	+94.0
Manufactured products	[1] 141.9	[1] [2]143.3	105.5	79.1	−1.0	+34.5	+79.4
All commodities other than farm products	[1] 141.0	[1] [2]142.1	104.5	77.9	−.8	+34.9	+81.0
All commodities other than farm products and foods	[1] 131.8	[1] [2]131.1	103.3	80.1	+.5	+27.6	+64.5

[1] Includes current motor vehicle prices (see note below).
[2] Revised.
[3] Not available.

Motor vehicles.—The rate of production of motor vehicles in October 1946 exceeded the monthly average rate of civilian production in 1941, and in accordance with the annuncement made in the September release the Bureau introduced current prices for motor vehicles in the October calculations. During the war motor vehicles were not produced for general civilian sales and the Bureau carried April 1942 prices forward in each computation through September 1946.

If April 1942 prices of motor vehicles had been used after September 1946, the indexes (1926=100) for the groups of which motor vehicles is a component would have been

	April 1947	*March 1947*	*February 1947*
All commodities	145.8	147.6	142.6
Metals and metal products	126.9	126.3	124.3
Manufactured products	138.9	140.2	136.7
All commodities other than farm products	138.8	139.8	136.3
All commodities other than farm products and foods	128.9	128.1	125.5

These special indexes will be published as long as the need for them continues.

Index Numbers by Commodity Groups, 1926 to April 1947

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1946, and by months from April 1946 to April 1947 are shown in table 2.

TABLE 2.—*Index numbers of wholesale prices by groups of commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	87.3
1942	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	98.8
1943	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	103.1
1944	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	104.0
1945	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	105.8
1946	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3	121.1
April	135.4	110.8	119.8	107.9	86.1	108.8	126.5	96.1	107.5	95.7	110.2
May	137.5	111.5	120.4	108.8	86.1	109.4	127.8	96.5	108.3	97.0	111.0
June	140.1	112.9	122.4	109.2	87.8	112.2	129.9	96.4	110.4	98.5	112.9
July	157.0	140.2	141.2	118.1	90.3	113.3	132.1	99.3	111.9	101.3	124.7
August	161.0	149.0	138.9	124.0	94.4	114.0	132.7	98.4	112.6	102.0	129.1
September	154.3	131.9	141.6	125.7	94.3	114.2	133.8	98.4	113.6	102.1	124.0
October	165.3	157.9	142.4	128.6	94.2	125.8	134.8	99.9	115.3	104.0	134.1
November	169.8	165.4	172.5	131.6	94.5	130.2	145.5	118.9	118.2	106.5	139.7
December	168.1	160.1	176.7	134.7	96.1	134.7	157.8	125.7	120.2	108.9	140.9
1947											
January	165.0	156.2	175.1	136.6	97.7	138.0	169.7	128.1	123.3	110.3	141.5
February	170.4	162.0	173.8	138.0	97.9	137.9	174.8	129.3	124.6	110.9	144.5
March	182.6	167.6	174.6	139.6	100.7	139.9	177.5	132.2	125.8	115.3	149.5
April	177.0	162.4	166.4	139.2	103.4	140.3	178.8	133.2	127.4	115.7	147.7

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 8–9 of Wholesale Prices, July 1944, Bulletin No. 870.

Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during March and April 1947 are shown by the index numbers in table 4. These indexes are not averaged to obtain an index for the month but are computed only to indicate the fluctuations from week to week.

TABLE 3.—*Index numbers of wholesale prices by special groups of commodities*

[1926=100]

Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0	*1946*					
1929	97.5	93.9	94.5	93.3	91.6	April	122.2	101.1	105.5	104.5	103.3
1932	55.1	59.3	70.3	68.3	70.2	May	123.6	101.9	106.4	105.1	103.9
1933	56.5	65.4	70.5	69.0	71.2	June	126.3	105.7	107.3	106.7	105.6
1936	79.9	75.9	82.0	80.7	79.6	July	141.7	110.2	118.9	117.5	109.5
1937	84.8	85.3	87.2	86.2	85.3	August	145.7	111.9	123.9	121.9	111.6
1938	72.0	75.4	82.2	80.6	81.7	September	141.4	115.0	117.2	117.2	112.2
1939	70.2	77.0	80.4	79.5	81.3	October	148.7	118.1	129.6	127.1	115.8
1940	71.9	79.1	81.6	80.8	83.0	November	153.4	129.1	134.7	132.9	120.7
1941	83.5	86.9	89.1	88.3	89.0	December	153.2	136.2	135.7	134.8	124.7
1942	100.6	92.6	98.6	97.0	95.5						
1943	112.1	92.9	100.1	98.7	96.9	*1947*					
1944	113.2	94.1	100.8	99.6	98.5	January	152.1	138.8	136.7	136.1	127.6
1945	116.8	95.9	101.8	100.8	99.7	February	154.9	142.1	139.7	138.6	128.5
1946	134.7	110.8	116.1	114.9	109.5	March	163.2	145.9	143.3	142.1	131.1
						April	160.1	144.5	141.9	141.0	131.8

TABLE 4.—*Weekly index numbers of wholesale prices by commodity groups, March and April 1947*

[1926=100]

Commodity group	Apr. 26	Apr. 19	Apr. 12	Apr. 5	Mar. 29	Mar. 22	Mar. 15	Mar. 8	Mar. 1
All commodities	146.8	147.2	148.1	148.8	149.4	149.0	148.3	148.7	146.4
Farm products	177.6	175.4	180.1	181.2	183.8	182.9	184.2	181.8	176.1
Foods	160.3	162.2	163.0	164.4	166.5	166.2	166.5	170.7	167.5
Hides and leather products	171.9	172.5	173.8	174.3	174.2	174.9	175.7	174.2	174.1
Textile products	137.8	138.8	139.6	139.3	138.7	138.7	138.3	137.4	137.0
Fuel and lighting materials	103.9	104.1	104.0	103.9	103.5	101.7	98.8	98.8	98.6
Metals and metal products	140.8	140.9	140.3	140.3	140.3	140.3	140.2	139.7	138.6
Building materials	178.0	178.4	177.9	177.8	177.0	176.7	175.3	175.3	173.0
Chemicals and allied products	130.5	132.5	134.5	134.5	132.8	133.0	131.7	130.6	129.3
Housefurnishing goods	128.6	128.1	126.7	126.7	126.6	126.6	126.1	126.1	125.5
Miscellaneous	115.2	115.6	114.3	115.7	114.9	114.6	113.0	111.9	111.2
Raw materials	161.3	160.3	163.4	164.0	165.5	164.3	164.1	162.5	158.9
Semimanufactured articles	144.7	146.0	146.2	145.6	145.1	145.1	145.0	144.0	142.7
Manufactured products	141.1	142.1	142.0	142.8	143.3	143.1	142.1	143.7	142.0
All commodities other than farm products	140.1	141.1	141.2	141.7	141.9	141.6	140.5	141.4	139.9
All commodities other than farm products and foods	132.0	132.4	132.1	132.3	131.9	131.3	130.0	129.4	128.7

Construction

Construction Activity, March-May 1947

The Housing Program

CONSTRUCTION WAS STARTED on 63,500 new permanent nonfarm houses during April 1947, bringing the total number of units to 200,600 started during the first 4 months of 1947. New dwelling units started during the month were 4 percent below April 1946, and for the first 4 months of 1947 the volume was 2½ percent under that for 1946.

Despite a 19-percent increase over March in the number of houses started, residential construction failed to gain the degree of momentum expected after the January spurt in building which followed relaxation of most building controls. The increase in the number of units started in April 1947 over January was 51 percent, and for the corresponding period in 1946, at the beginning of the Veterans' Emergency Housing Program, it was 83 percent.

A survey of local building permits issued for new dwelling units in nearly 200 leading cities of the United States showed that about half the cities issued permits for fewer dwellings in the first 4 months of 1947 than in the same period in 1946. Declines of from 47 to 66 percent occurred in such important cities as Philadelphia, New York, Denver, and the Minneapolis-St. Paul area. In a few of the cities (notably, Cleveland, San Francisco, and San Diego), however, substantial increases occurred in 1947 over the first 4 months of 1946 in the number of new permanent dwellings planned for early construction.

So far this year, builders have been faced with rapidly rising and unpredictable construction costs and have, therefore, probably concentrated on completing the great volume of residential construction started in the summer and early fall of 1946. In the first 4 months of 1947, almost four times as many new permanent homes were completed as in the comparable period of 1946 and a third again as many as in the last 4 months of 1946. It is estimated that over nine-tenths of the units under construction at the end of 1946 were completed by the end of April. During April, 53,400 homes were completed, while the number in various stages of construction at the end of the month totaled 314,600.

The dwelling-unit figures discussed refer only to new permanent dwellings and do not include dwellings provided by conversion of existing structures, or trailers and temporary accommodations, regularly included by the National Housing Agency in its reports on the progress of the Veterans' Emergency Housing Program.

Employment at the site of new residential construction remained practically unchanged from March, but fell by 50,000 workers between January and April 1947. Compared with April 1946, 13,000 fewer workers were employed at the site. Expenditures on new residential buildings increased only 2 percent between March and April 1947, and were 7 percent under the amount spent in January. For the first 4 months of 1947, however, home builders spent 52 percent more than in the comparable period of 1946. Even after adjusting the 1947 dollar volume of home building to the level of 1939 prices, there is still a large increase over the similar 4-month period in 1946 (about two-fifths), reflecting the high completion rate.

TABLE 1.—*Estimated number of family dwelling units or equivalent living accommodations started and completed in nonfarm areas, January 1946, through April 1947* [1]

[In thousands of units]

Year and month	All accommodations	New family dwelling units					Converted family units, dormitories and trailers [4]
		Total new family dwelling units	Permanent [2]			Federal temporary re-use program [3]	
			Total permanent	Private	Public		
	Started [5]						
1946	1,002.2	778.4	670.9	662.9	8.0	107.5	223.8
January	49.6	41.2	36.1	35.5	.6	5.1	8.4
February	56.2	50.5	43.1	43.1	0	7.4	5.7
March	86.6	68.9	60.4	60.4	0	8.5	17.7
April	97.7	79.4	66.1	66.1	0	13.3	18.3
May	106.2	83.9	67.6	67.6	0	16.3	22.3
June	93.8	79.4	63.6	62.3	1.3	15.8	14.4
July	108.2	80.2	64.3	63.0	1.3	15.9	28.0
August	107.5	80.7	64.4	60.9	3.5	16.3	26.8
September	102.3	65.5	57.1	57.1	0	8.4	36.8
October	78.9	58.5	58.1	56.8	1.3	.4	20.4
November	63.8	49.8	49.7	49.7	0	.1	14.0
December	51.4	40.4	40.4	40.4	0	(6)	11.0
1947: First 4 months	240.4	201.3	200.6	199.5	1.1	.7	39.1
January	54.6	42.1	42.1	41.0	1.1	0	12.5
February	50.4	41.6	41.6	41.6	0	.0	8.8
March	61.9	53.9	53.4	53.4	0	.5	8.0
April	73.5	63.7	63.5	63.5	0	.2	9.8

See footnotes at end of table.

TABLE 1.—*Estimated number of family dwelling units or equivalent living accommodations started and completed in nonfarm areas, January 1946, through April 1947* [1]—Con.

[In thousands of units]

Year and month	All accommodations	New family dwelling units					Converted family units, dormitories and trailers [4]
		Total new family dwelling units	Permanent [2]			Federal temporary re-use program [3]	
			Total permanent	Private	Public		
	Completed						
1946	658.3	492.4	453.8	453.8	(7)	[8] 38.6	[5] 165.9
January	24.9	----	18.7	18.7	0	----	6.2
February	28.0	----	20.3	20.3	0	----	7.7
March	31.2	----	22.6	22.6	0	----	8.6
April	35.6	----	26.4	26.4	0	----	9.2
May	39.9	----	30.3	30.3	0	----	9.6
June	46.6	----	34.9	34.9	0	----	11.7
July	54.3	----	41.0	41.0	0	----	13.3
August	59.4	----	42.2	42.2	0	----	17.2
September	81.2	----	49.8	49.8	0	----	31.4
October	85.3	----	54.5	54.5	0	----	30.8
November	81.7	----	55.1	55.1	0	----	26.6
December	90.2	----	58.0	58.0	(6)	----	32.2
1947: First 4 months	346.9	282.5	229.6	229.5	.1	52.9	64.4
January	94.1	75.3	59.3	59.3	0	16.0	18.8
February	91.2	75.3	59.8	59.8	(7)	15.5	15.9
March	86.4	72.1	57.1	57.1	0	15.0	14.3
April	75.2	59.8	53.4	53.3	.1	6.4	15.4

[1] Source: Estimates for privately financed conversions and Federal temporary re-used units are from the Office of the Housing Expediter; estimates for trailers are from the Bureau of the Census. All other estimates are from the Bureau of Labor Statistics.

[2] Covers both conventional and prefabricated units.

[3] Covers only those family dwelling units in the Federal temporary re-use housing program which are provided by dismantling temporary war structures and their re-erection at new sites.

[4] These figures are presented in terms of equivalent living accommodations, that is, 2 dormitory accommodations are counted as 1 dwelling unit. They cover: family dwelling units provided by the conversion of existing structures at the original site; dormitory accommodations whether built at new locations or converted at the original site; and trailers.

[5] A revision of this series is now being prepared to incorporate adjustments based on new information from a study of housing starts in 90 representative areas. The revised series will be published in a later issue of the Monthly Labor Review.

[6] Monthly data not available.

[7] Less than 50 units.

[8] Monthly figures include completed new family dwelling units in the Federal temporary re-use program provided by dismantling temporary war structures and their reerection at new sites. If these units could be segregated monthly, they would be included in column 6.

Total Construction Activity

Construction expenditures, as measured by the value of work put in place, rose by 137 million dollars in May 1947 to a total of 1,106 million dollars—14 percent above the May 1946 total. Thus far in 1947, a total of 4,808 million dollars was spent for construction (including minor building repairs), a 28-percent increase above the total for the same period last year. The 32-percent increase in expenditures by private builders for new housing and new industrial plant for the first 5 months of 1947 compared with 1946, is in contrast

with the nearly 30-percent decline in expenditures for new commercial building.

The dollar volume of commercial building (including office buildings, stores, restaurants, etc.) rose for the first time in May, however, after declining steadily since July 1946. The increase in expenditures for commercial building over the month offset a drop in the volume of industrial building, thus causing the total amount of money spent by private builders for all new nonresidential construction to rise slightly for the first time in 7 months.

TABLE 2.—*Estimated contruction employment in the United States for 1947* [1]

Type of project	Estimated employment (in thousands)			
	May 1947 [2]	April 1947 [3]	March 1947 [3]	May 1947 [3]
All types	1,848	1,689	1,580	1,913
New construction	1,601	1,460	1,380	1,631
Private construction	1,195	1,111	1,086	1,359
Residential (nonfarm) building	483	442	435	558
Nonresidential building	418	412	427	580
Farm construction	85	64	43	66
Public utilities	209	193	181	155
Public construction [4]	406	349	294	272
Residential building	29	40	48	35
Nonresidential building [5]	82	71	56	66
Reclamation	17	15	14	9
River, harbor, and flood control	23	23	23	20
Streets and highways	164	121	84	87
All other [6]	91	79	69	55
Minor building repairs	247	229	200	282
Residential	85	72	60	99
Nonresidential	98	91	87	128
Farm construction	64	66	53	55

[1] Estimates cover all persons performing work on, or employed on work directly incident to, new construction, major additions and alterations, and building repairs of the type for which building permits are usually issued. The estimates cover, therefore, construction and special trades contractors', wage-earner and salaried employees whether working at the construction site or in contractors' offices, shops, or yards; working proprietors; firm members; and self-employed persons; as well as employees of nonconstruction establishments performing work at the site of construction, operations of the employer, or contracted for by the employer and performed for others. The estimates exclude persons engaged in maintenance work. These figures should not be confused with those included in the Bureau's nonagricultural employement series, which covers only employees of construction and special trades contractors, and excludes force-account workers of Federal, State, and local governments, public utilities, and private firms.

[2] Preliminary. [3] Revised.

[4] Includes the following force-account employees hired directly by the Federal Government: 16,900 in May 1946; 20,500 in March 1947; 20,600 in April 1947; and 21,000 in May 1947.

[5] Includes construction workers engaged on the atomic bomb project.

[6] Includes airports, water supply and sewage disposal systems, electrification projects, community buildings, and miscellaneous public service enterprises.

NOTE: Beginning with the July issue, regular monthly publication of this table will be discontinued. Quarterly averages will be published beginning with the August issue, and in every third issue thereafter. The August issue will contain data on the first two quarters of 1947.

An equal amount (110 million dollars) was spent in May for privately financed public utility work and public-highway construction. For each of these categories, this is the largest amount spent since January 1939, when monthly data first became available. May 1947 expenditures for public utility construction, because of continued expansion of telephone and telegraph facilities, amounted to almost a third of the entire 1946 outlay for this type of work.

The dollar volume of privately financed home building and repair work rose 11 percent between April and May to 357 million dollars, only 9 percent below the 1946 peak in August. Expenditures of 12 million dollars for publicly financed housing, on the other hand, dwindled to almost half the amount spent in May 1946 when the Veterans' Emergency Housing Program was well under way.

Workers on all types of construction, except maintenance, numbered 1,848,000 in May 1947. The addition of 24,000 employees brought employment on nonresidential building and repair to 598,000. Residential construction and repair work employed 597,000 workers—an increase of 43,000 over April.

TABLE 3.—*Estimated construction expenditures [1] in the United States, selected months 1946 and 1947*

Type of construction	Estimated expenditures (in millions)					
	1947			May 1946 [2]	First 5 months of—	
	May [2]	April [3]	March [3]		1947 [2]	1946 [3]
Total construction	$1,106	$999	$913	$969	$4,808	$3,760
New construction [4]	942	848	785	816	4,120	3,105
Private construction	696	642	617	670	3,183	2,572
Residential building (nonfarm)	303	275	260	288	1,358	1,022
Nonresidential building (nonfarm)	243	240	247	282	1,265	1,171
Industrial	139	142	146	128	738	568
Commercial	60	55	57	110	303	420
All other	44	43	44	44	224	183
Farm construction	40	30	20	30	110	80
Public utilities	110	97	90	70	450	299
Public construction	246	206	168	146	937	533
Residential building	12	16	24	21	122	51
Nonresidential (except military and naval facilities)	39	35	28	23	150	114
Industrial facilities [5]	4	4	3	6	19	35
All other	35	31	25	17	131	79
Military and naval facilities	16	15	12	14	67	73
Highway	110	80	55	49	338	146
Other public	69	60	49	39	260	149
Federal [6]	30	26	23	20	118	77
State and local [7]	39	34	26	19	142	72
Minor building repairs [8]	164	151	128	153	688	655
Residential (nonfarm)	54	46	36	51	201	202
Nonresidential (nonfarm)	60	55	52	64	272	287
Farm construction	50	50	40	38	215	166

[1] Estimated construction expenditures represent the monetary value of the volume of work put in place in continental United States during the period indicated. These figures should be differentiated from data on value of construction reported in the table on urban building construction (table 4).
[2] Preliminary.
[3] Revised.
[4] Estimates of new construction were prepared jointly by the Bureau of Labor Statistics and the Office of Domestic Commerce, and include expenditures for new construction, major additions, and alterations.
[5] Expenditures for construction incidental to production of atomic bombs are excluded.
[6] Mainly river, harbor, flood control, reclamation, and power projects.
[7] Includes water supply, sewage disposal, and miscellaneous public-service enterprises.
[8] Covers privately financed structural repairs of the type for which building permits are generally required, except "farm construction", which, in addition, includes maintenance work.

Urban Building

The dollar value of city building construction continued upward in April 1947, for the fourth consecutive month. Estimated urban permit valuations in April (including the value of Federal construction contracts awarded) amounted to 435 million dollars, a 14-percent increase over March. These advances were shared by all types of building construction: 15 percent each in new residential building, and in additions, alterations, and repair work and 10 percent in new nonresidential building.

Total permit valuations in April 1947 were almost the same as in April 1946. New residential construction, however, decreased 7 percent over the year, to 240 million dollars, but was still higher than any other class of urban building construction. In fact, the dollar volume of private housing for which permits were issued was actually greater in each month this year, except March, than in the corresponding month of 1946. In March 1946, the valuation figure was unusually large, however, as many builders rushed plans to get higher priced homes started before anticipated construction controls were instituted. As a whole there was less residential building this April than last, solely because of the decline in publicly financed housing which came to a virtual standstill when the Federal re-use program was completed.

In April 1947, new nonresidential building (121 million dollars) was 11 percent above April a year ago and higher than in any month since the construction limitation order was issued on March 26, 1946. Recent gains in nonresidential building reflect not only seasonal influences, but also the effects of the relaxation of nonhousing construction controls. On January 10, 1947, the weekly authorization quota for controlled types of nonresidential building was raised from 35 to 50 million dollars.

Additions, alterations, and repairs, which followed the same general trend as new nonresidential building, amounted to 74 million dollars in April 1947—9 percent higher than in April 1946.

Urban building permit valuations for the first 4 months of 1947 were 28 percent under the total for the corresponding period of 1946. The decline in new residential construction in 1947 was below that in the other building categories—15 percent, compared with 23 percent for additions, alterations, and repairs, and 44 percent for new nonresidential building.

TABLE 4.—*Estimated permit valuation [1] of urban building construction,[2] by class of construction and by source of funds, selected months of 1946 and 1947*

Class of construction	Valuation (in millions)				
	1947		April [4] 1946	First 4 months of—	
	April [3]	March [4]		1947 [3]	1946 [4]
Total					
All building construction	$435	$382	$436	$1,360	$1,875
New residential [5]	240	208	259	720	844
New nonresidential	121	110	109	400	718
Additions, alterations, and repairs	74	64	68	240	313
Non-Federal					
All building construction	428	372	393	1,320	1,759
New residential [5]	239	206	223	710	750
New nonresidential	116	103	107	375	705
Additions, alterations, and repairs	73	63	63	235	304
Federal					
All building construction	7	10	43	[6] 40	[7] 116
New residential [5]	1	2	36	[6] 10	[7] 94
New nonresidential	5	7	2	25	13
Additions, alterations, and repairs	1	1	5	5	9

[1] Includes value of Federal construction contracts awarded.

[2] Estimates of non-Federal (private, and State and local government), urban building construction are based upon building permit reports received from places containing about 85 percent of the urban population of the country; estimates of federally financed projects are compiled from notifications of construction contracts awarded, which are obtained from other Federal agencies. By census definition the urban area comprises all incorporated places with a population of 2,500 or more in 1940 and, by special rule, a small number of unincorporated civil divisions.

[3] Preliminary.

[4] Revised.

[5] Includes value of dormitories and other nonhousekeeping residential buildings in addition to housekeeping units.

[6] Includes $7,264,000, the estimated cost of 1,084 dwelling units in New York City Housing Authority projects. This project, although financed solely with city funds, is included with Federal projects in order to segregate public from private housing. All other types of building construction financed with State or local government funds are included under "Non-Federal".

[7] Includes $3,087,643, the estimated cost of 608 dwelling units contained in New York City Housing Authority projects.

Among the larger projects for which building permits were granted in urban areas in April 1947 were (1) an electric power plant at Oswego, N. Y., valued at 7 million dollars; (2) a 175-unit housing project in Manhattan Borough, New York City, estimated to cost 2½ million dollars; (3) an office building for the State of Florida, at Tallahassee, with permit valuation of almost 1¾ million dollars; (4) a pumping station in Cleveland, valued at 1⅓ million dollars; and (5) two 1-million-dollar hospitals, one in Boston and the other in Evergreen Park, Ill.

TABLE 5.—*Estimated number and permit valuation [1] of new dwelling units scheduled to be started in all urban areas,[2] selected months of 1946 and 1947*

Source of funds and type of dwelling	1947		April 1946 [4]	First 4 months of—	
	April [3]	March [4]		1947 [3]	1946 [4]
	Number of new dwelling units				
All dwellings	42,474	37,649	56,204	132,580	181,170
Privately financed	42,374	37,158	45,276	130,905	150,686
1-family	35,179	30,615	38,975	108,487	126,695
2-family [5]	3,140	2,448	2,621	8,699	8,389
Multifamily [6]	4,055	4,095	3,680	13,719	15,602
Federally financed [7]	100	491	10,928	1,675	30,484
	Valuation (in thousands)				
All dwellings	$238,347	$206,511	$254,579	$715,072	$815,245
Privately financed	237,384	204,925	220,543	705,259	726,535
1-family	202,585	176,084	195,659	605,715	635,307
2-family [5]	13,413	10,763	10,839	36,893	34,120
Multifamily [6]	21,386	18,078	14,045	62,651	57,108
Federally financed [7]	963	1,586	34,036	9,813	88,710

[1] Includes value of Federal construction contracts awarded.
[2] See table 4, footnote 2, for source of urban estimates.
[3] Preliminary.
[4] Revised.
[5] Includes 1- and 2-family dwellings with stores.
[6] Includes multifamily dwellings with stores.
[7] For number of, and estimated cost of, dwelling units contained in New York City Housing Authority projects, but included here with federally financed housing, see table 4, footnotes 6 and 7.

Hours and Earnings

In March 1947, average hourly and average weekly earnings in private building construction reached the highest level reported since January 1934, the earliest year for which monthly data are available for private building construction as a whole. Average hourly pay reached $1.61, and a 4-percent rise during March brought average weekly pay to $61.23. The 38-hour workweek in March was 1 hour longer, compared with February. Earnings reported are for all workers on construction-site pay rolls—skilled, semiskilled, and unskilled; superintendents, time clerks, etc.

In the special building trades, average weekly earnings increased both over the month and over the year for all groups, largely because of wage increases and overtime pay (see table 6). For the plumbing and heating trades, and for excavation and foundation workers, wage increases since March 1946 brought average weekly earnings up 20 percent over the year to $66.89 and $58.36, respectively. Lengthening of the workweek and wage changes for plasterers and lathers increased their weekly pay 23 percent above the 1946 level to $69.15. Compared with February, the March workweek was 2 7/10 hours longer for masonry workers, and their average weekly earnings of $57.37 were almost $5 higher than in February.

A fractional decrease over the month in weekly hours worked by electrical workers was offset by a 3½-cent increase in hourly earnings, bringing weekly pay for this group to $75.75. This is the highest reported average weekly earnings for any group in private building construction since January 1939, when monthly data first became available by type of reporting contractor.

Both the special trades and general building contractors reported 8-year peaks in average weekly and average hourly earnings.

Reports are received monthly from over 11,000 different contractors. Data published are summaries of all reports received during the months shown but do not necessarily represent reports from identical firms.

TABLE 6.—*Average hours and earnings on private construction projects for selected types of work, March 1947* [1]

[Subject to revision]

Type of contractor	Average hours per week			Average weekly earnings [2]			Average hourly earnings		
	March 1947	February 1947 [3]	March 1946	March 1947	February 1947 [3]	March 1946	March 1947	February 1947 [3]	March 1946
All types of work	38.3	37.4	37.8	$60.63	$58.67	$52.74	$1.585	$1.569	$1.396
Building construction	38.0	36.9	37.5	61.23	58.92	52.87	1.610	1.598	1.411
General contractors	37.9	36.2	37.0	58.02	54.91	50.40	1.531	1.516	1.362
Special building trades [4]	38.2	37.6	38.0	64.92	63.65	55.58	1.699	1.691	1.463
Plumbing and heating	39.2	39.3	38.9	66.89	66.65	55.65	1.705	1.694	1.430
Painting and decorating	37.1	36.3	37.8	60.10	58.75	56.31	1.619	1.619	1.492
Electrical work	40.5	40.8	40.3	75.75	74.95	65.25	1.872	1.836	1.619
Masonry	35.1	32.4	36.6	57.37	52.41	51.91	1.637	1.619	1.419
Plastering and lathing	37.9	36.3	35.0	69.15	66.84	56.32	1.822	1.840	1.611
Carpentry	39.6	37.8	39.3	62.98	57.69	54.44	1.591	1.528	1.385
Roofing and sheet metal	35.8	34.1	36.5	53.67	50.59	48.76	1.497	1.483	1.335
Excavation and foundation	37.7	37.2	36.9	58.36	55.00	48.70	1.550	1.477	1.319
Nonbuilding construction	39.3	39.9	39.9	57.82	57.49	51.92	1.473	1.441	1.300
Highway and street	38.0	39.1	39.4	53.72	53.83	49.88	1.412	1.378	1.265
Heavy construction	39.2	40.2	41.0	58.98	59.15	55.94	1.504	1.472	1.363
Other	40.5	39.7	38.9	57.83	55.44	48.21	1.429	1.395	1.240

[1] Includes all firms reporting during months shown (over 11,000) but not necessarily identical establishments. Data cover all workers on the construction-site pay roll—skilled, semiskilled, and unskilled, superintendents, time clerks, etc.

[2] Hourly earnings when multiplied by weekly hours of work may not exactly equal weekly earnings because of rounding.

[3] Revised.

[4] Includes types not shown separately.

Trends of Employment and Labor Turn-Over

Labor Force, April 1947

WHO IS COUNTED IN THE LABOR FORCE

Labor force.—Persons 14 years of age and over who are employed or unemployed during the census week (the week containing the eighth day of the month).

Employed.—Those who, during the census week, (1) work full or part time for pay or profit; (2) work without pay in a family enterprise (farm or business) at least 15 hours; or (3) have a job but do not work because of illness, vacation, labor-management dispute, bad weather, or lay-off with definite instructions to return to work within 30 days.

Unemployed.—Those not working, but seeking a job.

Increases of 640,000 in employment and 90,000 in unemployment between March and April combined to raise the civilian labor force by 730,000, according to the Bureau of the Census Monthly Report on the Labor Force. The civilian labor force in April 1947 numbered 59,120,000, including 56,700,000 employed and 2,420,000 unemployed.

A seasonal expansion in agricultural employment accounted almost entirely for the gain in total employment. The number of workers employed on farms in April 1947 (7,860,000) was 310,000 below that in April 1946, as bad weather and flood conditions hampered spring planting in many parts of the country.

Nonagricultural employment, at the level of 48,840,000, remained virtually unchanged over the month. Idleness resulting from the safety stoppage in bituminous coal mines during the census week apparently balanced off minor seasonal gains in other industries. The number of women "with a job but not at work" in nonfarm activity increased by 410,000 between March and April, largely reflecting the effect of the labor-management dispute in the telephone in-

dustry. Total nonagricultural employment in April 1947 exceeded the level a year previous by 2,890,000—2,790,000 men, largely veterans, and 100,000 women.

Unemployment, except for the temporary rise in idleness among bituminous coal miners, held virtually stable between March and April. An increase of nearly 100,000 in the number of unemployed, to 2,420,000, was about the same as the estimated number of miners who had been idle during the entire week of the census survey. The unemployment total has now remained at about the same level since last January, apart from minor fluctuations, and continues some half million higher than the 1946 low point of last fall.

TABLE 1.—*Total labor force in the United States, classified by employment status, hours worked, and sex, March and April 1947 and April 1946*

[Source: U. S. Department of Commerce, Bureau of the Census]

Item	Estimated number (in thousands) of persons 14 years of age and over [1]								
	Total, both sexes			Male			Female		
	March 1947	April 1947	April 1946	March 1947	April 1947	April 1946	March 1947	April 1947	April 1946
Total labor force [2]	59,960	60,650	60,300	43,990	44,310	43,630	15,970	16,340	16,670
Civilian labor force	58,390	59,120	56,450	42,440	42,800	39,860	15,950	16,320	16,590
Unemployment	2,330	2,420	2,330	1,850	1,900	1,870	480	520	460
Employment	56,060	56,700	54,120	40,590	40,900	37,990	15,470	15,800	16,130
Nonagricultural	48,820	48,840	45,950	34,030	33,970	31,180	14,790	14,870	14,770
Worked 35 hours or more	40,680	40,120	38,570	29,400	29,260	27,140	11,280	10,860	11,430
Worked 15–34 hours	4,880	4,820	4,320	2,680	2,530	2,130	2,200	2,290	2,190
Worked 1–14 hours [3]	1,500	1,570	1,150	660	730	470	840	840	680
With a job but not at work [4]	1,760	2,330	1,910	1,290	1,450	1,440	470	880	470
Agricultural	7,240	7,860	8,170	6,560	6,930	6,810	680	930	1,360
Worked 35 hours or more	4,750	5,520	6,200	4,600	5,260	5,720	150	260	480
Worked 15–34 hours	1,790	1,770	1,630	1,380	1,230	900	410	540	730
Worked 1–14 hours [3]	300	260	160	230	190	(*)	(*)	(*)	(*)
With a job but not at work [4]	400	310	180	350	250	100	(*)	(*)	(*)

[1] Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution; those under 100,000 are not presented in the table but are replaced with an asterisk (*). All data exclude persons in institutions.

[2] Total labor force consists of the civilian labor force and the armed forces.

[3] Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

[4] Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute, or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unapid family workers.

Summary of Employment Reports for April 1947

EMPLOYMENT IN MANUFACTURING between March and April 1947 dropped 93,000—the first decline since the reconversion low in February 1946 and, for the first time since before World War II, seasonal influences were strongly reflected in employment changes.

The decline in manufacturing employment was the single most

important employment development in April. However, moderate seasonal increases in construction almost offset these declines. The telephone strike and the stoppage in the bituminous-coal-mining industry are both reflected in the over-all decrease of 276,000 in the total number of employees in nonagricultural establishments.

Industrial and Business Employment

Practically all of the employment loss in manufacturing occurred in the nondurable-goods industries. The apparel and textile industries were the chief contributing factors. The workweek in the nondurable-goods industries was also curtailed in April. Reports indicate that plant closings occurred in the woolen and worsted mills because of reduced business. The drop in the apparel group is attributable in part to the seasonal change-over in the coat and suit industry.

Smaller employment declines, which totaled nearly 15,000, were reported in tobacco, leather, and the miscellaneous industries. Tobacco had the greatest relative decrease—with preliminary reports indicating that lack of business was primarily responsible for lay-offs in the cigar industry.

Employment in the durable-goods industries also registered a slight decline between March and April 1947. For the most part, this reflected strikes in plants in the electrical-equipment and communications industries. However, there were indications of production cut-backs in such industries as lighting equipment, aluminum manufactures, radios, and furniture.

TABLE 1.—*Estimated number of employees* [1] *in nonagricultural establishments, by industry division*

Industry division	Estimated number of employees (in thousands)			
	April 1947	March 1947	February 1947	April 1946
Total estimated employment	41,767	42,043	41,849	39,908
Manufacturing	15,418	15,511	15,475	14,045
Mining	856	879	880	542
Contract construction	1,619	1,534	1,502	1,356
Transportation and public utilities	3,791	4,021	4,011	3,991
Trade	8,551	8,563	8,507	8,329
Finance [2]	1,554	1,555	1,546	1,510
Service [2]	4,552	4,565	4,561	4,474
Federal, State, and local government, including Federal force-account construction	5,426	5,415	5,367	5,661

[1] Estimates include all full- and part-time wage and salary workers in nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded. These estimates have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency and supersede data shown in mimeographed releases dated prior to April 1947 and Monthly Labor Reviews dated prior to May 1947. Data from January 1939 forward were affected by this revision. The complete series from 1939 are available upon request.

[2] Finance and service were formerly combined and published as "Finance, service, and miscellaneous." Comparable data from 1939 are available upon request.

The only sizable employment increase was reported by lumber and millwork where both sawmills and planing mills expanded seasonally. A lesser but significant increase was reported by shipbuilding plants in the transportation-equipment group.

TABLE 2.—*Estimated number of production workers and indexes of production-worker employment in manufacturing industries, by major industry group* [1]

Group	Estimated number of production workers (in thousands)		Production-worker indexes (1939=100)	
	April 1947	April 1946	April 1947	April 1946
All manufacturing	12,523	11,347	152.9	138.5
Durable goods	6,526	5,629	180.7	155.9
Nondurable goods	5,997	5,718	130.9	124.8
Iron and steel and their products	1,567	1,395	158.0	140.7
Electrical machinery	567	461	218.7	177.9
Machinery, except electrical	1,197	983	226.6	186.1
Transportation equipment, except automobiles	477	504	300.8	317.6
Automobiles	807	646	200.5	160.5
Nonferrous metals and their products	424	352	184.8	153.4
Lumber and timber basic products	626	521	148.9	123.8
Furniture and finished lumber products	433	382	132.1	116.3
Stone, clay, and glass products	428	385	146.0	131.1
Textile-mill products and other fiber manufactures	1,223	1,176	106.9	102.8
Apparel and other finished textile products	1,066	1,000	135.0	126.7
Leather and leather products	358	358	103.2	103.3
Food	1,068	1,039	125.0	121.6
Tobacco	82	85	87.5	90.8
Paper and allied products	385	361	145.0	136.0
Printing, publishing, and allied industries	422	389	128.6	118.5
Chemicals and allied products	565	539	196.2	187.1
Products of petroleum and coal	154	150	145.4	141.9
Rubber products	234	217	193.5	179.1
Miscellaneous industries	440	404	179.8	165.1

[1] The estimates and indexes presented in this table have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency and supersede data shown in mimeographed releases data prior to April 1947 and Monthly Labor Reviews dated prior to May 1947. Comparable data from January 1945 are available upon request.

Public Employment

Total Federal employment declined 32,000 in April 1947, by 22,000 in the country and 10,000 outside continental United States. Of the 2,200,000 persons remaining on the Federal rolls April 1, 273,000 were outside the country and over 1,000,000, or 48 percent, were in the War and Navy Departments and other war agencies.

Although the peak in Federal employment in continental United States was reached in 1943, increasing employment outside the country offset the subsequent continental declines until just before the end of World War II when the total in all areas reached 3,800,000.

Declines in military personnel in April 1947 showed signs of tapering off as the publicized estimated strength of 1,750,000 for July 1, 1947 was approached. Military pay, however, showed a sharp decline in April, reflecting a sudden large downward movement in leave payments which since September 1946 had been responsible for maintaining total military pay at a high level as compared with personnel.

TABLE 1.—*Total Federal employment by branch and agency group in selected periods*[1]

Year or month	All branches	Executive [2]				Legislative	Judicial	Government corporations [3]
		Total	War agencies [4]	Post Office Department [5]	All other agencies			
	All areas (including outside continental United States)							
1939	968,572	935,469	207,978	319,474	408,017	5,373	2,260	25,470
1943	3,244,924	3,200,527	2,366,251	364,092	470,184	6,171	2,636	35,590
1946:								
April	2,829,195	2,786,241	1,760,505	407,871	617,865	6,442	3,070	33,442
May	2,840,082	2,797,438	1,738,093	417,199	642,146	6,518	3,086	33,040
June	2,774,163	2,731,642	1,650,995	418,280	662,367	6,561	3,081	32,879
July	2,689,901	2,646,708	1,547,896	420,709	678,103	6,697	3,063	33,433
August	2,625,051	2,581,932	1,470,579	424,321	687,032	6,736	3,036	33,347
September	2,517,827	2,474,982	1,358,426	424,734	691,822	6,825	3,075	32,945
October	2,434,015	2,391,478	1,271,976	425,093	694,409	6,902	3,061	32,574
November	2,400,290	2,357,755	1,229,705	426,177	701,873	6,896	3,079	32,560
December	2,614,126	2,572,000	1,176,596	715,421	679,983	6,806	3,061	32,259
1947:								
January	2,279,039	2,237,128	1,129,710	426,818	680,600	6,864	3,066	31,981
February	2,256,832	2,214,638	1,104,137	425,754	684,747	7,080	3,069	32,045
March	2,247,293	2,205,082	1,091,197	426,978	686,907	7,039	3,061	32,111
April	2,215,399	2,173,262	1,058,678	429,507	685,077	7,174	3,072	31,891
	Continental United States							
1939	926,636	897,579	179,380	318,802	399,397	5,373	2,180	21,504
1943	2,927,343	2,889,737	2,071,260	363,352	455,125	6,171	2,546	28,889
1946:								
April	2,351,889	2,316,117	1,313,751	406,430	595,936	6,442	3,002	26,328
May	2,364,139	2,328,514	1,293,212	415,763	619,539	6,518	3,018	26,089
June	2,328,721	2,293,189	1,238,769	416,848	637,572	6,561	3,013	25,958
July	2,266,755	2,230,972	1,159,087	419,282	652,603	6,697	2,995	26,091
August	2,249,028	2,213,468	1,129,390	422,906	661,172	6,736	2,968	25,856
September	2,198,411	2,163,274	1,074,344	423,331	665,599	6,825	3,007	25,305
October	2,118,783	2,084,103	992,574	423,702	667,827	6,902	2,993	24,785
November	2,084,031	2,049,287	949,115	424,785	675,387	6,896	3,010	24,838
December	2,307,975	2,273,572	906,763	713,160	653,649	6,806	2,992	24,605
1947:								
January	1,982,568	1,948,312	868,473	425,425	654,414	6,864	2,998	24,394
February	1,971,646	1,937,231	854,850	424,339	658,042	7,080	3,001	24,334
March	1,964,824	1,930,725	844,818	425,567	660,340	7,039	2,993	24,067
April	1,942,844	1,909,052	822,597	428,090	658,365	7,174	3,004	23,614

[1] Employment represents an average for the year, or is as of the first of the month. Data for the executive branch are reported through the Civil Service Commission; data for the legislative and judicial branches and Government corporations are reported directly to the Bureau of Labor Statistics.

[2] From 1939 through June 1943, employment was reported for all areas monthly and employment within continental United States was secured by deducting from the all-areas figures the number of persons outside the continent, which was estimated from actual reports as of January of 1939 and 1940 and July of 1941 and 1943. Beginning July 1943, employment within continental United States was reported monthly and the number of persons outside the country (estimated from quarterly reports) was added to secure employment in all areas.

[3] Data for current months cover the following corporations: Federal Reserve banks, banks of the Farm Credit Administration, and the Panama Railroad Company. Data for earlier years include at various times the following additional corporations: Inland Waterways Corporation, Spruce Production Corporation, and certain employees of the Federal Deposit Insurance Corporation and of the Office of the Comptroller of the Currency, Treasury Department. Corporations not included in this column are under the executive branch.

[4] Covers the War and Navy Departments, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and, until their abolition or amalgamation with a peacetime agency, the agencies created specifically to meet war and reconversion emergencies.

[5] Prior to December 1943, employment data were adjusted upwards to convert the temporary substitute employees from a full-time equivalent to a name-count basis in order to be consistent with data reported subsequently. Prior to July 1945, clerks at third-class post offices were hired on a contract basis and therefore, because of being private employees, are excluded here. They are included beginning July 1945, however, when they were placed on the regular Federal pay roll by congressional action. Substitute rural mail carriers, who have been included in data published by the Civil Service Commission since September 1945, are excluded here. Employment figures include fourth-class postmasters in all months. Additional employment necessitated by the swollen Christmas business is included in December of each year; it is excluded from published figures of the Civil Service Commission beginning December 1942.

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The military personnel and pay shown in table 2 constitute revised series which incorporate the following changes over previously published data: Army personnel for 1939 and Navy pay rolls now exclude data for retired personnel and inactive reserves, Army pay rolls from 1943–June 1946 and Navy mustering-out pay and family allowances now represent actual monthly expenditures.

The pay rolls for Federal civilian employees are omitted from this issue because they are in process of adjustment from a pay-period to a calendar-month basis. The revised series will be shown in the next issue of the Monthly Labor Review.

TABLE 2.—*Personnel and pay of the military branch of the Federal Government in selected periods* [1]

[In thousands]

Year or month	Personnel (average for year or as of first of month)[2]			Type of pay (total for year or for month)				
	Total	Army[3]	Navy[4]	Total	Pay rolls[5]	Mustering-out pay[6]	Family allowances[7]	Leave payments[8]
1939	345	191	154	$331,523	$331,523	----------	----------	----------
1943	8,944	6,733	2,211	11,173,185	10,140,852	----------	$1,032,334	----------
1946:								
April	4,347	2,431	1,916	876,748	598,261	$211,571	66,915	----------
May	3,858	2,168	1,690	693,000	473,083	164,125	55,793	----------
June	3,446	2,009	1,437	736,131	544,514	143,984	47,632	----------
July	3,050	1,890	1,160	618,256	459,891	115,689	42,677	----------
August	2,745	1,815	930	559,112	413,575	104,937	40,583	$17
September	2,474	1,731	743	507,851	377,702	90,570	37,572	2,007
October	2,477	1,738	739	607,943	378,854	64,343	35,650	129,097
November	2,441	1,717	724	733,071	345,969	50,617	35,316	301,169
December	2,204	1,511	693	683,036	320,534	45,315	33,165	284,023
1947:								
January	1,987	1,319	668	684,875	307,516	29,967	29,052	318,340
February	1,906	1,254	652	648,164	294,040	18,722	28,004	307,398
March	1,834	1,199	635	651,444	284,441	18,258	26,548	322,197
April	1,777	1,148	629	547,964	260,188	17,291	26,085	244,400

[1] Except for Army personnel for 1939 which is from the Annual Report of the Secretary of War, data are from reports submitted to the Bureau of Labor Statistics by the various military branches.

[2] Includes those on active duty, on terminal leave, the missing, and those in the hands of the enemy.

[3] Prior to March 1944, data include persons on induction furlough. Prior to June 1942 and after April 1945, Philippine Scouts are included.

[4] Covers Navy, Marine Corps, and Coast Guard.

[5] Pay rolls are for personnel on active duty only. (Navy pay rolls previously published included pay of the retired and inactive reserves.) For the Army, pay rolls from 1943 through June 1946 represent actual expenditures. Army pay rolls for other periods and Navy pay rolls for all periods represent estimated obligations based on an average monthly personnel count. Pay rolls for the Navy proper include cash payments for clothing-allowance balances in January, April, July, and October.

[6] Represents actual expenditures.

[7] Represents Government's contribution. The men's share is included in the pay rolls.

[8] Leave payments were authorized by Public Law 704 of the 79th Congress to former enlisted personnel for accrued and unused leave and to present officers and enlisted personnel for leave accrued in excess of 60 days. Payment of present personnel while on terminal leave is included in the pay roll. Value of bonds (representing face value to which interest will be added at time bonds are cashed) and cash payments are included.

Detailed Reports for Industrial and Business Employment, March 1947

MONTHLY REPORTS on employment and pay rolls are presented below for more than 150 manufacturing industries and for 26 nonmanufacturing industries including class 1 steam railroads. Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay rolls for the period ending nearest the 15th of the month.

TABLE 1.—*Estimated number of production workers in manufacturing industries* [1]

[In thousands]

Industry group and industry	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946
All manufacturing [1]	12,617	12,599	12,511	10,819
Durable goods [1]	6,535	6,505	6,429	5,118
Nondurable goods [1]	6,082	6,094	6,082	5,701
Durable goods				
Iron and steel and their products [1]	1,567	1,562	1,552	1,313
Blast furnaces, steel works, and rolling mills	482.3	483.3	479.7	453.8
Gray-iron and semisteel castings	87.1	87.1	86.2	76.5
Malleable-iron castings	25.7	25.4	25.1	20.1
Steel castings	49.5	49.8	50.5	38.9
Cast-iron pipe and fittings	20.2	20.1	19.8	16.2
Tin cans and other tinware	41.1	41.3	41.6	33.4
Wire drawn from purchased rods	29.5	30.1	30.5	25.4
Wirework	42.3	39.7	41.9	32.4
Cutlery and edge tools	27.9	27.9	27.8	22.5
Tools (except edge tools, machine tools, files and saws)	27.0	26.7	26.7	22.5
Hardware	51.3	50.9	50.1	39.9
Plumbers' supplies	30.5	30.7	30.1	23.0
Stoves, oil burners, and heating equipment not elsewhere classified	64.2	63.5	62.8	47.6
Steam and hot-water heating apparatus and steam fittings	52.6	52.5	52.6	36.6
Stamped and enameled ware and galvanizing	85.9	85.8	84.9	66.1
Fabricated structural and ornamental metalwork	59.0	58.0	57.5	45.6
Metal doors, sash, frames, molding, and trim	10.1	10.1	10.2	7.2
Bolts, nuts, washers, and rivets	21.5	21.7	21.6	19.3
Forgings, iron and steel	27.5	27.3	26.9	25.2
Wrought pipe, welded and heavy-riveted	13.3	13.8	13.6	10.8
Screw-machine products and wood screws	29.4	29.5	29.4	26.1
Steel barrels, kegs, and drums	6.1	6.0	6.2	4.7
Firearms	14.2	14.3	14.1	11.4
Electrical machinery [1]	599	601	598	380
Electrical equipment	316.9	318.1	315.7	185.6
Radios and phonographs	92.0	92.5	92.8	68.2
Communication equipment	91.6	92.2	92.4	68.9
Machinery, except electrical [1]	1,189	1,181	1,173	910
Machinery and machine-shop products	385.6	385.1	381.9	313.9
Engines and turbines	45.6	45.5	45.4	25.1
Tractors	54.9	55.0	54.8	40.5
Agricultural machinery, excluding tractors	46.9	46.8	46.1	30.4
Machine tools	58.0	59.0	59.8	57.3
Machine-tool accessories	49.0	50.1	51.3	45.9
Textile machinery	37.5	37.1	36.4	27.2
Pumps and pumping equipment	59.8	59.4	58.8	48.9
Typewriters	23.3	23.0	22.7	16.2
Cash registers, adding and calculating machines	39.8	38.7	37.6	30.2
Washing machines, wringers and driers, domestic	13.7	13.3	12.7	9.4
Sewing machines, domestic and industrial	11.3	11.1	10.9	8.7
Refrigerators and refrigeration equipment	70.7	67.1	68.2	43.8
Transportation equipment, except automobiles [1]	472	473	474	476
Locomotives	26.0	26.9	26.6	5.0
Cars, electric- and steam-railroad	54.5	53.6	51.2	41.9
Aircraft and parts, excluding aircraft engines	141.0	141.9	143.9	116.8
Aircraft engines	28.0	28.6	29.5	22.4
Shipbuilding and boatbuilding	140.8	141.5	142.4	218.6
Motorcycles, bicycles, and parts	12.8	12.5	12.2	8.3
Automobiles [1]	798	791	755	464

See footnotes at end of table.

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TABLE 1.—*Estimated number of production workers in manufacturing industries* [1]—Con.

[In thousands]

Industry group and industry	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946
Durable goods—Continued				
Nonferrous metals and their products [1]	431	433	428	324
Smelting and refining, primary, of nonferrous metals	41.3	41.4	40.2	28.9
Alloying and rolling and drawing of nonferrous metals except aluminum	62.7	63.8	63.0	43.8
Clocks and watches	28.3	28.5	28.3	25.2
Jewelry (precious metals) and jewelers' findings	17.7	17.8	17.9	16.6
Silverware and plated ware	15.8	15.8	15.6	13.2
Lighting equipment	33.0	33.0	32.3	19.0
Aluminum manufactures	50.6	50.8	51.1	41.9
Sheet metal work, not elsewhere classified	26.4	26.5	26.4	21.9
Lumber and timber basic products [1]	611	598	592	499
Sawmills and logging camps	234.0	229.9	228.5	206.5
Planing and plywood mills	77.3	76.7	76.9	66.2
Furniture and finished lumber products [1]	441	442	432	376
Mattresses and bedsprings	23.8	23.6	23.5	17.8
Furniture	175.4	176.8	173.4	154.3
Wooden boxes, other than cigar	26.9	26.4	26.4	24.6
Caskets and other morticians' goods	15.1	15.0	15.0	13.3
Wood preserving	13.7	13.5	13.0	11.7
Wood, turned and shaped	25.4	25.9	24.6	22.7
Stone, clay, and glass products [1]	427	424	425	376
Glass and glassware	103.4	101.7	104.1	101.9
Glass products made from purchased glass	13.4	13.4	13.2	12.3
Cement	28.8	28.9	28.9	23.7
Brick, tile, and terra cotta	63.7	63.2	63.1	54.3
Pottery and related products	50.3	50.4	49.6	43.6
Gypsum	5.9	6.1	6.1	5.1
Wallboard, plaster (except gypsum), and mineral wool	10.9	11.1	11.1	10.0
Lime	9.0	9.0	8.9	8.5
Marble, granite, slate, and other products	17.7	17.4	16.9	15.2
Abrasives	20.1	20.1	20.2	17.7
Asbestos products	21.3	21.4	21.6	15.1
Nondurable goods				
Textile-mill products and other fiber manufactures [1]	1,242	1,247	1,242	1,169
Cotton manufactures, except smallwares	470.1	471.5	470.1	442.4
Cotton smallwares	14.2	14.4	14.6	14.3
Silk and rayon goods	95.2	95.4	95.7	89.8
Woolen and worsted manufactures, except dyeing and finishing	158.1	162.1	163.0	158.1
Hosiery	120.1	120.0	119.0	111.5
Knitted cloth	10.2	10.4	10.5	11.2
Knitted outerwear and knitted gloves	29.4	30.1	30.4	30.6
Knitted underwear	37.8	37.3	36.6	34.9
Dyeing and finishing textiles, including woolen and worsted	66.3	66.4	66.0	62.9
Carpets and rugs, wool	27.8	27.2	26.7	22.4
Hats, fur-felt	11.9	12.0	12.0	10.9
Jute goods, except felts	3.9	3.9	3.8	3.9
Cordage and twine	14.7	15.0	15.0	14.4
Apparel and other finished textile products [1]	1,120	1,119	1,090	998
Men's clothing, not elsewhere classified [2]	287.5	287.8	284.6	248.3
Shirts, collars, and nightwear [2]	74.1	73.7	71.4	61.2
Underwear and neckwear, men's [2]	18.1	18.5	18.3	16.5
Work shirts [2]	16.5	16.8	16.3	14.8
Women's clothing, not elsewhere classified [2]	442.3	439.4	421.8	400.6
Corsets and allied garments [2]	17.7	17.3	17.1	16.0
Millinery [2]	26.2	26.0	24.2	27.3
Handkerchiefs [2]	4.9	4.8	4.7	4.4
Curtains, draperies, and bedspreads [2]	23.6	24.8	25.7	24.2
Housefurnishings, other than curtains, etc. [2]	28.4	28.8	29.1	27.3
Textile bags [2]	29.4	29.7	29.3	24.6
Leather and leather products [1]	363	364	362	358
Leather	43.4	43.7	43.2	44.0
Boot and shoe cut stock and findings	17.7	17.6	17.8	18.1
Boots and shoes	196.0	196.6	195.4	191.6
Leather gloves and mittens	9.8	9.9	10.1	11.8
Trunks and suitcases	13.6	13.7	13.9	14.0

See footnotes at end of table.

TABLE 1.—*Estimated number of production workers in manufacturing industries* [1]—Con.

[In thousands]

Industry group and industry	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946
Nondurable goods—Continued				
Food [1]	1,055	1,062	1,098	1,050
Slaughtering and meat packing	143.5	148.9	154.4	147.0
Butter	22.8	22.4	22.1	22.4
Condensed and evaporated milk	13.6	13.4	13.1	13.1
Ice cream	17.1	16.4	16.1	16.4
Flour	30.7	30.7	30.5	30.2
Feeds, prepared	22.5	21.6	21.9	22.5
Cereal preparations	9.8	9.8	10.2	10.9
Baking	245.0	243.9	249.0	254.5
Sugar refining, cane	14.4	13.2	14.6	13.4
Sugar, beet	4.5	5.0	9.2	4.5
Confectionery	56.0	56.8	56.9	52.5
Beverages, nonalcoholic	22.7	22.4	22.5	22.6
Malt liquors	52.8	52.4	52.7	51.5
Canning and preserving	76.7	81.7	94.6	84.9
Tobacco manufactures [1]	86	89	90	82
Cigarettes	32.9	33.4	34.1	32.0
Cigars	40.1	42.1	41.8	37.2
Tobacco (chewing and smoking) and snuff	7.0	7.2	7.5	7.3
Paper and allied products [1]	387	387	386	357
Paper and pulp	172.5	172.7	172.0	162.0
Paper goods, other	47.5	47.6	47.5	46.2
Envelopes	11.0	11.0	10.9	10.1
Paper bags	15.6	15.8	16.0	14.1
Paper boxes	90.8	90.9	91.3	83.9
Printing, publishing, and allied industries [1]	421	420	417	386
Newspapers and periodicals	138.5	137.2	135.2	127.0
Printing, book and job	164.8	166.0	166.2	154.2
Lithographing	30.4	30.5	30.2	28.3
Bookbinding	34.2	33.9	33.7	30.4
Chemicals and allied products [1]	569	568	564	540
Paints, varnishes, and colors	37.3	36.8	36.3	34.8
Drugs, medicines, and insecticides	54.3	54.0	54.2	50.8
Perfumes and cosmetics	10.3	10.7	10.9	12.1
Soap	15.4	15.1	14.5	14.2
Rayon and allied products	58.4	59.1	58.9	59.7
Chemicals, not elsewhere classified	124.6	124.2	124.3	115.4
Explosives and safety fuses	13.9	13.7	13.4	14.5
Compressed and liquefied gases	5.9	6.0	5.9	5.4
Ammunition, small-arms	6.7	6.6	6.6	8.3
Fireworks	2.6	2.7	3.0	2.5
Cottonseed oil	15.0	16.5	17.3	13.9
Fertilizers	28.8	27.9	25.6	31.4
Products of petroleum and coal [1]	155	155	154	149
Petroleum refining	98.7	98.5	98.3	96.9
Coke and byproducts	25.8	26.1	25.6	24.9
Paving materials	1.7	1.6	1.6	1.8
Roofing materials	12.1	12.3	12.4	10.5
Rubber products [1]	238	240	240	216
Rubber tires and inner tubes	107.8	108.9	110.1	103.7
Rubber boots and shoes	20.2	20.3	19.9	17.3
Rubber goods, other	75.5	76.4	76.6	68.1
Miscellaneous industries [1]	446	443	439	396
Instruments (professional and scientific), and fire control equipment	20.0	20.1	20.1	22.6
Photographic apparatus	25.4	25.3	25.3	23.5
Optical intruments and ophthalmic goods	21.3	21.6	21.8	21.1
Pianos, organs, and parts	10.8	10.6	10.4	8.1
Games, toys, and dolls	23.1	21.9	21.3	19.4
Buttons	9.4	9.6	10.1	10.1
Fire extinguishers	2.2	2.3	2.1	2.3

[1] March 1947 estimates are based on reports from 33,500 cooperating establishments covering 7,650,000 production workers. Estimates for the major industry groups have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency and supersede data shown in mimeographed releases dated prior to April 1947 and Monthly Labor Reviews dated prior to May 1947. Comparable series from January 1945 available upon request. The sum of the individual industry estimates, however, do not agree with the totals shown for the major industry groups. The Bureau has not prepared estimates for certain industries and, with the exception of apparel, estimates for individual industries have been adjusted only to levels indicated by the 1939 Census of Manufactures but not to Federal Security Agency data. Data for the current and immediately preceding months are subject to revisions.

[2] These estimates have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency. They supersede data shown in mimeographed releases dated prior to May 1947 and Monthly Labor Reviews dated prior to June 1947. Comparable series from January 1939 available upon request.

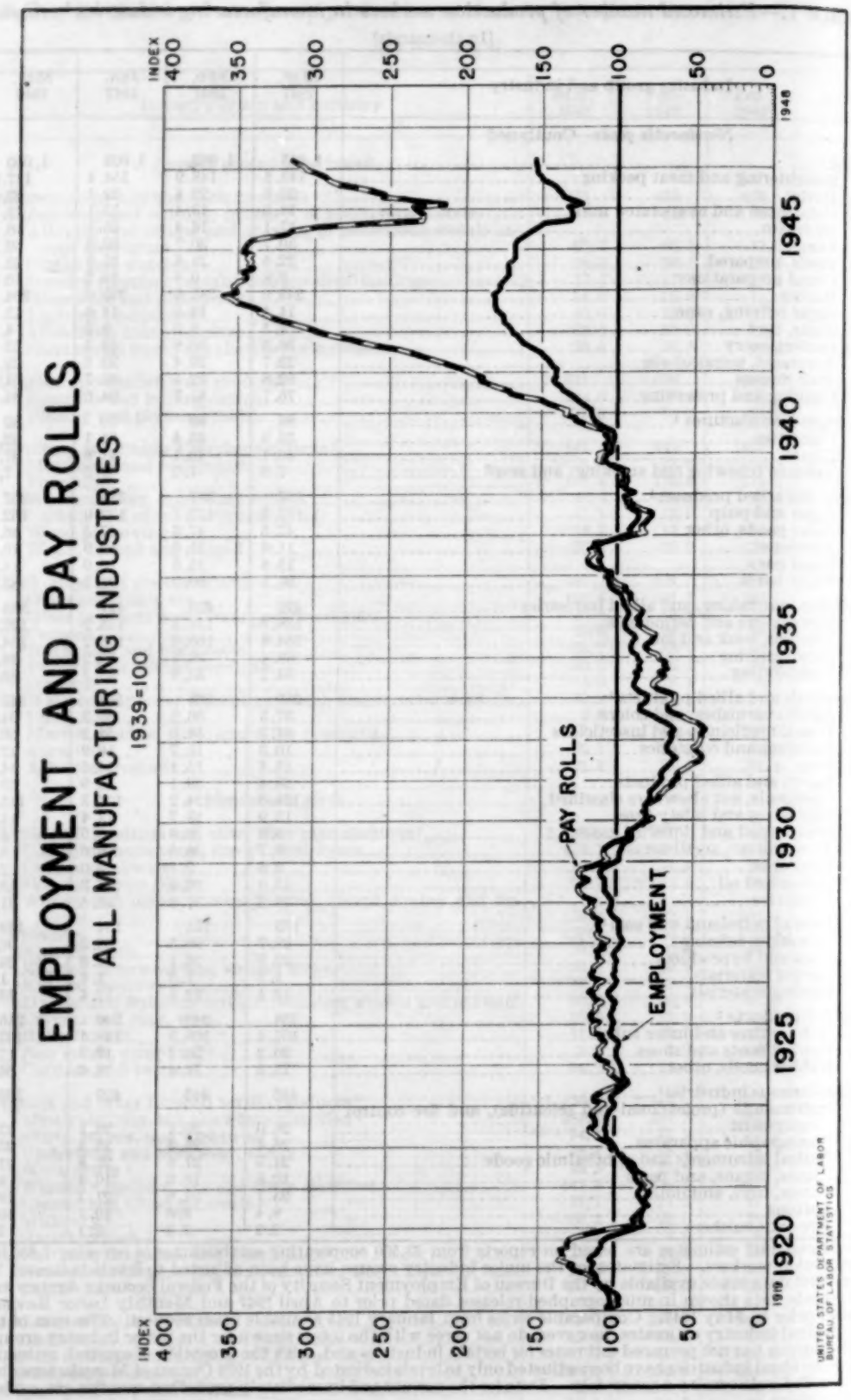
EMPLOYMENT AND PAY ROLLS
ALL MANUFACTURING INDUSTRIES
1939=100
INDEX
400
350
300
250
200
150
100
50
0
1919
1920
1925
1930
1935
1940
1945
1946
PAY ROLLS
EMPLOYMENT
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

TABLE 2.—*Indexes of production-worker employment and pay rolls in manufacturing industries* [1]

[1939 average = 100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946
All manufacturing [1]	154.0	153.8	152.7	132.1	313.9	310.7	307.3	238.3
Durable goods [1]	181.0	180.1	178.0	141.7	350.3	344.7	340.0	244.8
Nondurable goods [1]	132.8	133.0	132.8	124.4	278.4	277.5	275.3	232.1
Durable goods								
Iron and steel and their products [1]	158.1	157.5	156.5	132.4	294.2	287.9	287.9	225.1
Blast furnaces, steel works, and rolling mills	124.2	124.4	123.5	116.8	212.9	209.3	208.9	189.1
Gray-iron and semisteel castings	149.1	149.1	147.4	131.0	320.0	317.1	317.1	254.0
Malleable-iron castings	142.3	141.1	139.2	111.2	310.0	307.5	302.8	212.6
Steel castings	164.4	165.4	167.7	129.4	304.6	293.0	302.8	213.2
Cast-iron pipe and fittings	122.4	121.8	120.0	97.9	287.5	282.1	286.7	192.3
Tin cans and other tinware	129.4	130.1	131.0	105.2	243.3	238.7	242.8	178.1
Wire drawn from purchased rods	134.4	136.8	138.8	115.7	235.6	239.6	247.7	178.8
Wirework	139.3	130.6	137.7	106.7	279.8	254.9	273.8	194.1
Cutlery and edge tools	180.8	180.7	180.5	146.0	408.0	407.0	405.1	306.9
Tools (except edge tools, machine tools, files, and saws)	176.2	174.6	174.1	147.2	362.8	355.6	361.3	278.7
Hardware	144.0	142.9	140.4	111.8	300.9	297.5	289.0	209.2
Plumbers' supplies	123.8	124.7	122.2	93.1	234.7	229.6	237.6	157.1
Stoves, oil burners, and heating equipment not elsewhere classified	139.3	137.6	136.2	103.2	281.8	274.0	277.9	181.5
Steam and hot-water heating apparatus and steam fittings	173.7	173.2	173.5	120.8	337.3	331.8	331.2	217.5
Stamped and enameled ware and galvanizing	154.7	154.5	152.9	119.0	325.4	317.6	318.3	218.7
Fabricated structural and ornamental metalwork	166.2	163.4	162.0	128.5	307.4	293.8	287.9	211.4
Metal doors, sash, frames, molding, and trim	129.9	131.0	131.3	93.0	261.9	251.4	253.8	157.9
Bolts, nuts, washers, and rivets	150.6	151.5	150.7	135.2	284.5	287.2	277.4	219.3
Forgings, iron and steel	178.8	177.8	175.0	163.9	353.6	348.9	341.0	264.0
Wrought pipe, welded and heavy-riveted	158.8	165.2	161.9	129.3	289.9	293.6	292.9	204.4
Screw-machine products and wood screws	173.6	174.5	173.9	154.0	362.7	354.8	355.0	281.7
Steel barrels, kegs, and drums	101.2	99.5	102.9	77.3	239.9	236.3	232.4	148.7
Firearms	283.7	286.6	282.8	227.6	598.0	590.1	580.4	420.4
Electrical machinery [1]	231.3	232.0	230.8	146.6	431.2	422.9	425.6	232.3
Electrical equipment	175.3	176.0	174.6	102.6	324.1	315.2	317.2	154.6
Radios and phonographs	211.5	212.7	213.3	156.7	419.7	415.7	423.2	285.9
Communication equipment	285.2	287.0	287.6	214.6	524.3	528.1	530.3	353.9
Machinery, except electrical [1]	225.1	223.5	222.0	172.3	416.6	409.6	406.6	287.3
Machinery and machine-shop products	190.6	190.3	188.8	155.1	354.9	352.0	350.3	258.0
Engines and turbines	244.4	243.8	243.5	134.6	494.1	493.1	491.7	230.8
Tractors	175.4	175.9	175.2	129.4	278.9	273.6	273.3	199.1
Agricultural machinery, excluding tractors [2]	168.6	168.4	165.7	109.3	312.5	308.3	294.9	169.9
Machine tools	158.4	161.1	163.2	156.4	275.6	278.9	282.7	256.8
Machine-tool accessories	194.8	199.2	204.0	182.3	326.7	332.5	342.7	291.1
Textile machinery	171.4	169.5	166.2	124.2	351.7	347.3	337.3	232.5
Pumps and pumping equipment	246.6	245.1	242.7	202.0	489.6	485.3	466.5	359.3
Typewriters	144.0	142.0	139.8	99.7	287.7	282.6	276.2	189.1
Cash registers, adding and calculating machines	202.4	196.8	191.2	153.6	401.1	388.5	355.7	270.4
Washing machines, wringers and driers, domestic	184.2	177.7	169.6	126.4	357.6	316.8	326.8	194.9
Sewing machines, domestic and industrial	144.1	142.1	138.6	111.2	295.2	287.6	278.1	205.1
Refrigerators and refrigeration equipment	201.0	190.8	194.1	124.5	359.4	325.0	345.7	200.2
Transportation equipment, except automobiles [1]	297.2	298.3	298.4	299.9	555.2	557.5	562.6	525.5
Locomotives	402.3	416.3	410.9	77.1	723.7	827.2	797.2	154.5
Cars, electric- and steam-railroad	222.3	218.5	208.6	171.1	448.2	438.7	411.2	296.1
Aircraft and parts, excluding aircraft engines	355.3	357.6	362.8	294.4	659.0	667.8	668.7	524.0
Aircraft engines	314.9	321.8	331.4	252.2	479.9	506.8	535.0	384.4
Shipbuilding and boatbuilding	203.4	204.4	205.7	315.7	384.3	377.1	395.8	548.5
Motorcycles, bicycles, and parts	183.4	179.4	175.1	119.0	353.8	327.6	318.5	190.0
Automobiles [1]	198.2	196.6	187.7	115.3	347.7	337.3	321.1	173.0
Nonferrous metals and their products [1]	188.0	188.9	186.9	141.4	360.2	361.0	354.8	252.1
Smelting and refining, primary, of nonferrous metals	149.5	149.9	145.5	104.7	285.2	282.4	269.7	181.8
Alloying and rolling and drawing of nonferrous metals except aluminum	161.5	164.4	162.2	112.9	300.6	307.6	301.4	199.7
Clocks and watches	139.6	140.7	139.3	124.2	303.2	306.2	296.0	248.2
Jewelry (precious metals) and jewelers' findings	122.8	123.5	124.0	115.2	232.8	233.9	236.8	214.0
Silverware and plated ware	130.5	129.8	128.5	109.0	286.5	279.5	279.2	217.5
Lighting equipment	161.3	161.2	157.9	92.6	290.2	298.8	285.7	142.3
Aluminum manufactures	214.9	215.6	217.2	177.9	382.9	375.0	381.8	299.1
Sheet-metal work, not elsewhere classified	140.9	141.2	140.8	117.0	273.4	275.3	277.4	210.2

See footnotes at end of table.

TABLE 2.—*Indexes of production-worker employment and pay rolls in manufacturing industries* [1]—Continued

[1939 average=100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946
Durable goods—Continued								
Lumber and timber basic products [1]	145.4	142.3	140.9	118.6	313.3	311.4	292.4	219.1
Sawmills and logging camps	81.3	79.8	79.3	71.7	175.1	175.6	163.4	131.9
Planing and plywood mills	106.3	105.6	105.9	91.2	221.7	220.0	216.2	164.9
Furniture and finished lumber products [1]	134.3	134.6	131.8	114.6	292.3	292.4	283.1	217.9
Mattresses and bedsprings	129.5	128.8	128.2	96.9	254.8	258.0	259.8	169.6
Furniture	110.2	111.1	108.9	97.0	242.4	243.0	234.8	184.3
Wooden boxes, other than cigar	106.1	104.3	104.2	97.0	238.2	236.4	234.8	199.8
Caskets and other morticians' goods [2]	121.3	120.2	120.2	106.8	237.7	232.4	231.4	183.9
Wood preserving	121.6	120.5	116.0	103.7	294.5	288.6	271.1	222.4
Wood, turned and shaped	115.4	117.7	112.0	103.4	246.2	251.7	238.3	200.9
Stone, clay, and glass products [1]	145.3	144.5	144.9	128.3	285.7	278.4	280.0	223.1
Glass and glassware	148.2	145.7	149.1	146.0	283.7	270.7	282.6	246.7
Glass products made from purchased glass	134.3	133.6	132.0	123.3	279.3	279.2	268.7	220.2
Cement	120.8	121.2	121.5	99.3	202.7	201.1	197.9	154.8
Brick, tile, and terra cotta	112.2	111.3	111.2	95.6	231.6	226.5	226.6	169.1
Pottery and related products	152.1	152.2	149.9	131.7	286.6	278.8	270.0	217.3
Gypsum	118.8	122.8	123.8	104.0	235.4	238.9	243.8	178.5
Wallboard, plaster (except gypsum), and mineral wool	133.9	136.4	136.2	122.7	300.6	312.0	290.8	232.4
Lime	95.0	95.3	94.2	90.1	222.1	218.2	210.0	190.0
Marble, granite, slate, and other products	95.4	94.0	91.3	82.3	164.4	158.1	152.9	130.1
Abrasives	259.4	259.9	261.8	228.9	461.3	450.2	482.6	384.9
Asbestos products	134.2	134.6	136.1	95.2	307.4	307.1	305.3	185.6
Nondurable goods								
Textile-mill products and other fiber manufactures [1]	108.6	109.1	108.6	102.2	265.0	262.0	254.3	211.4
Cotton manufactures, except smallwares	118.7	119.1	118.7	111.7	322.0	309.1	304.4	242.3
Cotton smallwares	106.4	108.4	110.0	107.1	232.8	237.3	239.3	210.8
Silk and rayon goods	79.5	79.6	79.9	75.0	208.8	206.9	201.3	163.6
Woolen and worsted manufactures, except dyeing and finishing	105.9	108.6	109.2	105.9	262.0	275.0	251.8	234.2
Hosiery	75.5	75.5	74.8	70.1	158.2	157.9	156.1	129.0
Knitted cloth	93.8	95.3	95.7	102.2	202.8	207.1	198.5	208.5
Knitted outerwear and knitted gloves	104.4	107.0	108.0	108.8	231.7	237.8	238.3	226.9
Knitted underwear	98.2	96.7	94.9	90.5	230.9	223.0	215.5	182.7
Dyeing and finishing textiles, including woolen and worsted	99.2	99.3	98.7	94.1	218.3	217.2	215.3	180.7
Carpets and rugs, wool	108.8	106.3	104.4	87.7	222.4	214.5	210.6	153.2
Hats, fur-felt	81.7	82.2	82.5	74.6	175.0	178.0	180.5	166.6
Jute goods, except felts	108.0	107.8	105.2	107.9	255.4	255.9	240.1	222.3
Cordage and twine	121.6	123.7	124.0	118.8	272.7	273.6	271.8	225.5
Apparel and other finished textile products [1]	141.9	141.7	138.0	126.4	311.5	314.1	300.6	259.1
Men's clothing, not elsewhere classified [2]	125.2	125.3	123.9	108.1	281.3	280.8	277.2	211.7
Shirts, collars, and nightwear [2]	100.2	99.6	96.5	82.7	233.7	234.0	225.9	170.2
Underwear and neckwear, men's [2]	107.0	108.8	107.9	97.3	275.6	274.1	270.8	223.0
Work shirts [2]	116.9	118.7	115.6	104.9	274.3	283.9	273.7	208.5
Women's clothing, not elsewhere classified [2]	154.5	153.5	147.4	139.9	340.0	344.8	322.3	299.3
Corsets and allied garments [2]	94.5	91.9	91.1	85.1	201.2	195.7	187.8	165.2
Millinery [2]	102.6	101.9	95.0	106.8	197.2	201.9	169.6	206.6
Handkerchiefs [2]	96.4	95.2	91.6	86.0	228.0	221.4	201.4	179.3
Curtains, draperies, and bedspreads [2]	132.6	139.5	144.6	136.1	285.8	298.7	310.7	278.6
Housefurnishings, other than curtains, etc. [2]	254.3	258.0	260.2	244.4	511.7	518.2	522.0	477.3
Textile bags [2]	233.4	235.4	232.7	195.1	459.5	467.8	473.1	338.3
Leather and leather products [1]	104.5	104.9	104.4	103.1	222.4	223.0	220.8	203.6
Leather	91.8	92.4	91.5	93.2	184.8	185.5	179.3	163.9
Boot and shoe cut stock and findings	94.0	93.6	94.6	96.2	176.7	175.6	178.4	171.4
Boots and shoes	89.9	90.2	89.6	87.9	198.3	198.9	197.7	182.7
Leather gloves and mittens	97.6	98.9	101.0	118.0	181.5	183.5	191.9	219.8
Trunks and suitcases	163.4	164.4	166.4	168.7	320.0	327.0	321.0	304.0
Food [1]	123.5	124.2	128.4	122.8	239.3	243.0	256.4	209.7
Slaughtering and meat packing	119.1	123.5	128.1	122.0	217.1	237.8	268.0	191.1
Butter	127.2	124.7	123.1	124.7	243.3	237.3	233.7	211.3
Condensed and evaporated milk	140.4	137.9	134.6	135.1	286.1	278.2	269.8	236.7
Ice cream	108.7	104.4	102.3	104.4	188.9	182.8	181.6	163.3
Flour	124.0	124.0	123.2	121.8	266.6	262.2	268.2	214.1
Feeds, prepared	146.1	140.4	142.1	146.2	306.4	278.2	284.3	258.5
Cereal preparations	131.9	131.9	137.0	146.8	258.7	253.9	260.5	256.4
Baking	106.2	105.7	107.9	110.3	193.2	194.5	201.1	182.8
Sugar refining, cane	101.9	93.0	103.2	94.4	184.8	161.2	167.3	142.6

See footnotes at end of table.

TABLE 2.—*Indexes of production-worker employment and pay rolls in manufacturing industries* [1]—Continued

[1939 average=100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946
Nondurable goods—Continued								
Food [1]—Continued								
Sugar, beet	43.0	48.2	88.0	43.1	78.4	92.8	158.6	68.3
Confectionery	112.6	114.1	114.3	105.6	228.4	230.1	226.3	185.7
Beverages, nonalcoholic	106.7	105.4	106.0	106.3	165.7	163.4	164.6	148.1
Malt liquors	146.4	145.2	145.9	142.6	239.7	233.6	235.7	200.2
Canning and preserving	57.1	60.8	70.3	63.2	131.2	137.9	158.2	132.1
Tobacco manufactures [1]	92.2	95.4	96.1	87.9	193.1	201.0	209.4	171.3
Cigarettes	119.9	121.9	124.2	116.6	226.8	233.6	241.5	201.7
Cigars	78.7	82.8	82.1	73.1	175.7	186.2	195.2	156.4
Tobacco (chewing and smoking) and snuff	76.5	78.4	82.1	79.9	144.4	144.0	155.8	129.0
Paper and allied products [1]	145.9	145.9	145.6	134.4	290.9	288.1	285.1	235.4
Paper and pulp	125.5	125.7	125.2	117.9	252.5	251.4	246.9	208.1
Paper goods, other	126.2	126.5	126.2	122.7	250.1	247.0	246.4	212.4
Envelopes	126.5	126.4	125.9	116.6	238.8	237.3	234.9	197.7
Paper bags	140.8	142.6	144.7	127.5	283.8	283.9	292.2	229.3
Paper boxes	131.3	131.4	132.0	121.3	261.3	256.8	257.9	212.5
Printing, publishing, and allied industries [1]	128.2	128.1	127.2	117.7	227.7	221.8	219.6	183.8
Newspapers and periodicals	116.7	115.6	114.0	107.0	196.9	191.0	185.2	154.4
Printing, book and job	130.4	131.4	131.5	122.1	238.9	234.2	235.2	200.2
Lithographing	117.1	117.3	116.2	108.9	205.1	199.1	201.1	167.5
Bookbinding	132.6	131.6	130.9	117.8	285.1	275.8	278.0	230.8
Chemicals and allied products [1]	197.5	197.1	195.6	187.3	377.5	372.6	362.9	317.0
Paints, varnishes, and colors	132.4	130.6	129.0	123.6	230.6	222.0	216.4	192.3
Drugs, medicines, and insecticides	198.2	196.9	197.9	185.5	362.9	362.7	352.8	301.0
Perfumes and cosmetics	99.7	103.3	105.6	116.9	185.0	188.3	190.3	185.0
Soap	113.2	111.2	107.1	104.4	214.8	208.3	199.2	169.7
Rayon and allied products	121.0	122.3	122.0	123.7	236.4	236.0	219.7	199.6
Chemicals, not elsewhere classified	179.1	178.6	178.6	165.9	326.8	323.5	321.0	276.3
Explosives and safety fuses	191.0	188.3	184.9	199.6	315.3	307.9	320.3	309.8
Compressed and liquefied gases [2]	149.7	151.1	147.9	136.8	253.9	258.4	248.1	221.3
Ammunition, small-arms	156.0	155.4	155.9	193.6	333.2	334.1	332.3	376.8
Fireworks	228.5	231.0	258.9	211.8	628.4	623.7	661.1	533.1
Cottonseed oil	99.0	108.3	114.1	91.7	253.9	280.7	295.0	198.4
Fertilizers	153.4	148.8	136.6	167.6	385.0	360.6	327.6	387.0
Products of petroleum and coal [1]	145.9	146.0	145.4	140.4	264.9	256.8	253.9	237.2
Petroleum refining	135.4	135.2	135.0	133.1	238.6	228.8	227.5	217.9
Coke and byproducts	119.0	120.2	117.9	114.7	228.5	230.5	222.6	210.0
Paving materials	69.9	66.4	67.4	73.5	118.0	114.5	116.1	130.9
Roofing materials	150.5	152.9	154.4	130.5	312.8	314.0	313.5	229.1
Rubber products [1]	196.5	198.2	198.8	178.7	374.3	385.0	386.3	298.2
Rubber tires and inner tubes	199.1	201.2	203.5	191.6	343.7	357.7	361.2	281.1
Rubber boots and shoes	136.4	136.8	133.9	116.7	275.2	280.6	276.0	217.9
Rubber goods, other	145.9	147.6	148.0	131.5	298.6	302.8	303.4	242.4
Miscellaneous industries [1]	182.1	180.9	179.3	161.9	367.6	360.0	356.7	295.7
Instruments (professional and scientific), and fire control equipment	181.0	181.8	182.0	204.5	327.6	326.4	329.5	346.0
Photographic apparatus	147.2	146.4	146.5	136.2	271.6	249.5	254.1	215.3
Optical instruments and ophthalmic goods	183.4	186.2	187.9	181.3	334.5	334.3	344.8	309.4
Pianos, organs, and parts	142.1	139.2	136.5	105.8	298.6	302.6	297.7	179.4
Games, toys, and dolls	123.8	117.5	114.2	104.1	270.9	246.7	236.4	205.1
Buttons	85.8	87.5	91.7	92.1	189.2	196.9	203.0	190.1
Fire extinguishers	225.0	227.3	214.7	228.9	410.0	409.7	425.9	471.1

[1] These indexes are based on 33,500 cooperating establishments covering 7,650,000 full- and part-time production workers who worked or received pay during any part of one pay period ending nearest the 15th of March 1947. Indexes for the major industry groups have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency and supersede data shown in mimeographed releases dated prior to April 1947 and Monthly Labor Reviews dated prior to May 1947. Comparable series from January 1945 available upon request. Indexes for the individual industry estimates, however, do not agree with the indexes shown for the major industry groups. With the exception of the industries in the apparel group, indexes for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures, but not to Federal Security Agency data.

Indexes for the current and immediately preceding months are subject to revision.

[2] Revisions have been made as follows in the indexes for earlier months: *Agricultural machinery, excluding tractors*—July and August 1946 pay roll to 247.5 and 252.9. *Caskets and other morticians' goods.*—November and December 1946 pay roll to 209.8 and 229.3. *Compressed and liquefied gases.*—December 1946 pay roll to 247.4.

[3] These indexes have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency. They supersede data shown in mimeographed releases dated prior to May 1947 and Monthly Labor Reviews dated prior to June 1947. Comparable series from January 1939 available upon request.

TABLE 3.—*Estimated number of employees in selected nonmanufacturing industries* [1]

Industry group and industry	Estimated number of employees (in thousands)			
	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946
Mining: [2]				
Anthracite	67.7	68.7	69.1	67.7
Bituminous coal	332	335	336	348
Metal	78.2	77.3	76.9	57.7
Iron	27.3	26.5	26.4	16.0
Copper	24.2	24.2	23.9	17.8
Lead and zinc	16.5	16.6	16.5	14.5
Gold and silver	8.0	7.9	7.7	7.2
Miscellaneous	2.3	2.2	2.2	2.3
Telephone	598	594	588	504
Telegraph [3]	37.9	38.3	39.4	46.4
Electric light and power	254	252	250	236
Street railways and busses	254	254	254	244
Hotels (year-round)	378	380	378	385
Power laundries	(4)	(4)	(4)	(4)
Cleaning and dyeing	(4)	(4)	(4)	(4)
Class I steam railroads [5]	1,326	1,325	1,332	1,368

[1] See footnote 1, table 4. [2] Data are for production workers only.
[3] Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and of cable companies.
[4] The change in definition from "wage earner" to "production worker" in the power laundries and cleaning and dyeing industries results in the omission of driver-salesmen. This causes a significant difference in the data. New series are being prepared.
[5] Source: Interstate Commerce Commission.

TABLE 4.—*Indexes of employment and pay rolls in selected nonmanufacturing industries* [1]

[1939 average=100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1946
Mining:								
Anthracite	81.8	82.9	83.4	81.7	206.2	184.7	202.0	178.5
Bituminous coal	89.7	90.4	90.8	93.9	245.6	248.7	265.4	230.9
Metal	88.6	87.6	87.2	65.5	162.6	162.0	156.8	102.1
Iron	135.5	131.5	131.4	79.3	246.7	240.3	229.4	111.5
Copper	101.6	101.5	100.4	74.9	196.8	198.0	193.6	120.6
Lead and zinc	106.1	106.9	106.4	93.3	222.2	226.2	221.7	181.1
Gold and silver	32.2	31.7	31.3	29.1	50.7	51.0	48.3	39.8
Miscellaneous	56.9	55.2	54.7	57.3	92.0	85.3	85.5	87.8
Quarrying and nonmetallic	98.7	97.1	96.9	88.8	213.7	205.6	204.8	172.6
Crude petroleum production [2]	92.0	91.7	92.1	90.8	154.5	152.9	153.8	144.4
Public utilities:								
Telephone	188.1	186.9	185.2	158.6	270.4	269.4	267.5	237.0
Telegraph	100.7	101.8	104.6	123.2	182.3	185.4	189.1	177.1
Electric light and power	104.0	103.2	102.5	96.4	160.8	163.7	159.5	140.4
Street railways and busses	131.0	131.1	130.9	126.1	217.8	218.7	216.1	187.2
Wholesale trade	111.7	111.9	112.2	106.6	191.6	190.4	189.7	167.5
Retail trade	111.1	109.6	110.5	106.0	190.1	187.4	187.2	160.9
Food	112.8	111.2	108.5	106.9	199.9	197.1	189.4	163.9
General merchandise	122.5	119.4	125.6	118.6	205.6	201.0	208.4	173.3
Apparel	113.6	108.2	110.0	109.7	195.0	184.3	188.2	170.2
Furniture and housefurnishings	84.4	84.3	84.3	74.2	146.6	143.8	144.1	115.1
Automotive	97.8	98.2	98.3	88.2	171.7	172.7	170.4	142.6
Lumber and building materials	115.4	113.9	113.4	104.7	200.2	196.8	193.4	165.5
Hotels (year-round) [3]	117.3	117.7	117.3	119.3	216.8	216.6	215.1	201.1
Power laundries	108.7	109.5	111.0	109.6	196.9	196.1	201.8	181.3
Cleaning and dyeing	118.8	117.0	118.2	124.3	214.7	204.7	213.8	213.4
Class I steam railroads [4]	134.3	134.1	134.9	138.5	(5)	(5)	(5)	(5)

[1] These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked or received pay during any part of one pay period ending nearest the 15th of March 1947, as follows:

Mining.—2,700 establishments, 354,000 production workers.
Public utilities.—6,800 establishments, 620,000 employees.
Wholesale trade.—11,400 establishments, 326,000 employees.
Retail trade.—39,900 establishments, 1,026,000 employees.
Hotels (year-round).—1,300 establishments, 137,000 employees.
Power laundries and cleaning and dyeing.—1,800 establishments, 74,000 production workers.
Data for the current and immediately preceding months are subject to revision.

[2] Does not include well drilling or rig building.
[3] Cash payments only; additional value of board, room, and tips, not included.
[4] Source: Interstate Commerce Commission. [5] Not available.

Labor Turn-Over in Manufacturing, Mining, and Public Utilities, March 1947

THE FACTORY HIRING RATE in March 1947 held at the February level, with 50 new employees being hired for every 1,000 on the pay roll. Since hiring generally increases at this time of the year, some slackening in the demand for labor is indicated. Most industries are now operating close to capacity.

The separation rate, however, did rise seasonally to 48 per 1,000 employees, but it was the lowest March rate since 1941, reflecting comparative stability in the labor market. For every 1,000 workers on the pay rolls 34 voluntarily left their jobs, a rate well below the wartime levels but nearly 5 times the March 1940 rate, indicating that job opportunities on a selective basis are still available.

Lay-offs, at 9 per 1,000, continued at about the same rate that has prevailed since the beginning of the year; they were only half as frequent as during March 1946 when the liquidation of war production was still in progress.

Weaknesses in several major consumer-goods lines, such as woolens, leather, meat, and tobacco, were accentuated as hiring rates continued to decline and lay-offs continued at a fairly high rate. While many of these employment reductions are seasonal, the re-emergence of the seasonal pattern would seem to indicate that the unusually heavy backlog of demand for goods has been met.

In the durable-goods industries, total separations rose sharply during the month resulting from increases in both quits and lay-offs, while accessions gained only slightly. Lay-off rates rose in the electrical-machinery group and the automobile parts and accessories industry, largely as a result of completions or cancellations of orders and shortages of materials. Lack of orders caused increasing lay-offs in several branches of the nonelectrical machinery industry. Heaviest lay-offs, though at a decreasing rate, continued in shipbuilding and aircraft.

In the mining industries, voluntary separations rose with the seasonal return of many mine workers to agriculture and other outdoor activities.

TABLE 1.—*Monthly labor turn-over rates (per 100 employees) in manufacturing industries*[1]

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total separation:												
1947	4.9	4.5	[2] 4.8									
1946	6.8	6.3	6.6	6.3	6.3	5.7	5.8	6.6	6.9	6.3	4.9	4.5
1945	6.2	6.0	6.8	6.6	7.0	7.9	7.7	17.9	12.0	8.6	7.1	5.9
1943	7.1	7.1	7.7	7.5	6.7	7.1	7.6	8.3	8.1	7.0	6.4	6.6
1939	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
Quit:												
1947	3.5	3.2	[2] 3.4									
1946	4.3	3.9	4.2	4.3	4.2	4.0	4.6	5.3	5.3	4.7	3.7	3.0
1945	4.6	4.3	5.0	4.8	4.8	5.1	5.2	6.2	6.7	5.6	4.7	4.0
1943	4.5	4.7	5.4	5.4	4.8	5.2	5.6	6.3	6.3	5.2	4.5	4.4
1939	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
Discharge:												
1947	.4	.4	[2] .4									
1946	.5	.5	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4
1945	.7	.7	.7	.6	.6	.7	.6	.7	.6	.5	.5	.4
1943	.5	.5	.6	.5	.6	.6	.7	.7	.6	.6	.6	.6
1939	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
Lay-off: [3]												
1947	.9	.8	[2] .9									
1946	1.8	1.7	1.8	1.4	1.5	1.2	.6	.7	1.0	1.0	.7	1.0
1945	.6	.7	.7	.8	1.2	1.7	1.5	10.7	4.5	2.3	1.7	1.3
1943	.7	.5	.5	.6	.5	.5	.5	.5	.5	.5	.7	1.0
1939	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
Miscellaneous including military: [4]												
1947	.1	.1	[2] .1									
1946	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1
1945	.3	.3	.4	.4	.4	.4	.4	.3	.2	.2	.2	.2
1943	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	.6
Accession:												
1947	6.0	5.0	[2] 5.0									
1946	8.5	6.8	7.1	6.7	6.1	6.7	7.4	7.0	7.1	6.8	5.7	4.3
1945	7.0	5.0	4.9	4.7	5.0	5.9	5.8	5.9	7.4	8.6	8.7	6.9
1943	8.3	7.9	8.3	7.4	7.2	8.4	7.8	7.6	7.7	7.2	6.6	5.2
1939	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.8

[1] Month-to-month employment changes as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month while the latter refer, for the most part, to a 1-week period ending nearest the middle of the month. In addition, labor turn-over data, beginning in January 1943, refer to all employees, whereas the employment and pay-roll reports relate only to production workers. The turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing, and certain seasonal industries, such as canning and preserving, are not covered. Plants on strike are also excluded. For the month of February rates are based on reports from 7,000 establishments, employing 4,622,000 workers.

[2] Preliminary.

[3] Including temporary, indeterminate, and permanent lay-offs.

[4] In 1939, miscellaneous separations were included with quits.

TABLE 2.—*Monthly labor turn-over rates (per 100 employees) in selected groups and industries,*[1] *March 1947*[2]

Group and industry	Total separation		Quit		Discharge		Lay-off		Miscellaneous including military		Total accession	
	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
Manufacturing												
Durable goods	5.1	4.4	3.5	3.1	0.5	0.4	1.0	0.8	0.1	0.1	5.4	5.2
Nondurable goods	4.4	4.4	3.3	3.2	.3	.3	.7	.8	.1	.1	4.6	4.7
Iron and steel and their products	4.2	3.9	3.2	2.8	.4	.4	.4	.5	.2	.2	4.6	4.3
Blast furnaces, steel works, and rolling mills	2.9	2.7	2.4	2.1	.2	.2	.1	.2	.2	.2	3.2	3.0
Gray-iron castings	7.6	7.2	6.0	5.2	1.1	.9	.3	.9	.2	.2	8.7	7.6
Malleable-iron castings	6.6	5.2	5.7	4.2	.6	.4	.1	.2	.2	.4	7.0	6.6
Steel castings	4.7	3.6	3.2	2.7	.6	.3	.7	.5	.2	.1	5.7	4.1
Cast-iron pipe and fittings	5.5	4.6	4.8	4.0	.5	.4	.1	.2	.1	(3)	5.4	4.5
Tin cans and other tinware	5.0	4.9	2.9	3.1	.6	.6	1.4	1.1	.1	.1	4.4	4.1
Wire products	4.0	4.0	2.6	2.5	.5	.4	.7	.9	.2	.2	3.9	3.8
Cutlery and edge tools	4.6	5.0	3.6	3.5	.7	1.4	.2	.1	.1	(3)	5.4	4.9
Tools (except edge tools, machine tools, files, and saws)	4.1	4.1	2.8	3.0	.4	.3	.7	.7	.2	.1	4.5	4.1
Hardware	6.3	5.4	5.1	4.4	.6	.4	.4	.5	.2	.1	6.4	6.7
Stoves, oil burners, and heating equipment	6.5	6.4	4.8	4.3	1.0	1.0	.5	.9	.2	.2	6.6	7.1
Steam and hot-water heating apparatus and steam fittings	5.9	5.9	4.4	4.7	.8	.7	.6	.4	.1	.1	6.3	5.9
Stamped and enameled ware and galvanizing	5.0	5.2	4.1	3.9	.5	.6	.3	.5	.1	.2	6.8	6.6
Fabricated structural-metal products	5.0	4.5	3.6	3.0	.4	.4	.9	1.0	.1	.1	6.2	5.7
Bolts, nuts, washers, and rivets	3.7	3.3	2.8	2.3	.4	.4	.4	.4	.1	.2	4.0	3.6
Forgings, iron and steel	3.3	3.2	2.6	2.5	.3	.3	.3	.3	.1	.1	5.4	4.4
Electrical machinery	5.1	4.1	3.2	3.0	.5	.4	1.2	.6	.2	.1	4.4	4.4
Electrical equipment for industrial use	4.2	2.9	2.2	2.1	.3	.2	1.4	.4	.3	.2	2.7	3.1
Radios, radio equipment, and phonographs	6.8	5.4	4.1	3.7	.7	.7	1.9	.9	.1	.1	6.1	5.9
Communication equipment, except radios	3.5	2.9	3.0	2.5	.2	.2	.2	.1	.1	.1	3.4	3.6
Machinery, except electrical	4.0	3.5	2.7	2.4	.4	.4	.8	.6	.1	.1	4.4	4.4
Engines and turbines	4.6	6.8	2.6	2.2	.4	.5	1.4	4.0	.2	.1	4.6	4.4
Agricultural machinery and tractors	4.2	3.6	3.4	3.0	.3	.3	.4	.2	.1	.1	4.6	5.0
Machine tools	3.7	3.4	1.8	1.7	.5	.3	1.3	1.2	.1	.2	2.4	2.3
Machine-tool accessories	4.4	3.8	2.3	2.1	.4	.5	1.6	1.1	.1	.1	3.2	3.3
Metalworking machinery and equipment, not elsewhere classified	4.0	3.1	2.6	2.3	.3	.3	1.0	.4	.1	.1	3.3	3.2
General industrial machinery, except pumps	3.9	3.5	2.4	2.4	.4	.4	1.0	.6	.1	.1	3.4	3.4
Pumps and pumping equipment	4.0	2.8	2.8	2.0	.6	.5	.5	.2	.1	.1	4.0	3.6
Transportation equipment, except automobiles	7.9	8.2	3.9	3.6	.5	.4	3.4	4.1	.1	.1	8.2	7.5
Aircraft	6.8	7.0	3.7	3.5	.3	.3	2.7	3.1	.1	.1	6.7	6.0
Aircraft parts, including engines	4.2	4.3	2.7	2.7	.4	.4	1.0	1.1	.1	.1	3.7	5.0
Shipbuilding and repairs	11.5	11.8	5.1	4.4	.9	.7	5.4	6.6	.1	.1	12.5	11.4
Automobiles	4.7	3.6	3.3	2.7	.5	.4	.8	.4	.1	.1	5.2	6.0
Motor vehicles, bodies, and trailers	4.3	3.6	3.3	2.8	.5	.4	.4	.3	.1	.1	5.4	6.5
Motor-vehicle parts and accessories	5.5	3.7	3.3	2.6	.6	.4	1.4	.5	.2	.2	4.8	5.0
Nonferrous metals and their products	4.9	4.6	3.4	3.2	.6	.6	.8	.7	.1	.1	4.9	4.6
Primary smelting and refining, except aluminum and magnesium	3.4	3.4	2.7	2.0	.4	.8	.1	.4	.2	.2	3.6	3.7
Rolling and drawing of copper and copper alloys	3.4	3.1	2.2	2.4	.4	.3	.7	.3	.1	.1	2.5	2.6
Lighting equipment	4.9	4.6	3.6	3.8	.3	.5	1.0	.2	(3)	.1	8.4	7.0
Nonferrous-metal foundries, except aluminum and magnesium	4.8	5.4	3.6	3.5	.7	.6	.3	1.1	.2	.2	5.4	5.4

See footnotes at end of table.

TABLE 2.—*Monthly labor turn-over rates (per 100 employees) in selected groups and industries,*[1] *March 1947*[2]—Continued

Group and industry	Total separation		Quit		Discharge		Lay-off		Miscellaneous including military		Total accession	
	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
Manufacturing—Continued												
Lumber and timber basic products	7.2	6.2	6.0	4.9	0.4	0.4	0.7	0.8	0.1	0.1	8.5	7.2
Sawmills	6.9	5.9	5.7	4.3	.4	.4	.7	1.1	.1	.1	8.5	7.1
Planing and plywood mills	5.3	4.2	4.3	3.5	.5	.4	.4	.2	.1	.1	5.6	5.0
Furniture and finished lumber products	6.9	6.6	5.3	5.0	.7	.8	.8	.7	.1	.1	6.8	7.2
Furniture, including mattresses and bedsprings	6.7	6.3	5.1	4.8	.7	.8	.8	.6	.1	.1	6.5	7.0
Stone, clay, and glass products	4.0	3.7	2.6	2.5	.4	.4	.8	.6	.2	.2	4.0	4.1
Glass and glass products	4.3	3.8	2.3	2.1	.5	.4	1.3	1.1	.2	.2	4.0	4.1
Cement	3.9	3.1	3.0	2.5	.3	.3	.4	.1	.2	.2	3.5	3.3
Brick, tile, and terra cotta	4.4	4.5	3.4	3.5	.5	.5	.4	.4	.1	.1	5.8	5.0
Pottery and related products	3.6	3.7	2.7	2.9	.4	.4	.4	.3	.1	.1	4.1	5.1
Textile-mill products	4.9	4.6	3.7	3.5	.4	.4	.7	.6	.1	.1	4.9	5.2
Cotton	5.6	5.5	4.8	4.5	.4	.4	.4	.5	(3)	.1	5.8	6.0
Silk and rayon goods	4.1	3.6	2.9	2.7	.3	.2	.8	.6	.1	.1	3.9	4.1
Woolen and worsted, except dyeing and finishing	5.0	4.0	2.4	2.4	.4	.4	2.1	1.0	.1	.2	3.3	4.5
Hosiery, full-fashioned	2.7	3.2	2.1	2.2	.2	.3	.3	.6	.1	.1	2.6	2.9
Hosiery, seamless	4.2	4.2	3.5	3.4	.2	.3	.3	.3	.2	.2	4.8	5.6
Knitted underwear	4.0	4.2	3.5	3.6	.4	.4	.1	.2	(3)	(3)	5.4	6.1
Dyeing and finishing textiles, including woolen and worsted	2.8	2.7	1.9	2.0	.4	.3	.4	.3	.1	.1	3.4	3.8
Apparel and other finished textile products	5.0	4.6	4.3	4.0	.2	.2	.5	.4	(3)	(3)	5.4	5.9
Men's and boys' suits, coats, and overcoats	3.1	3.4	2.9	3.1	.1	.2	.1	.1	(3)	(3)	3.9	4.7
Men's and boys' furnishings, work clothing, and allied garments	5.7	4.9	4.7	4.3	.2	.2	.8	.4	(3)	(3)	5.5	5.7
Leather and leather products	4.5	3.8	3.8	3.2	.3	.2	.3	.3	.1	.1	4.9	5.0
Leather	3.4	2.8	2.4	2.0	.4	.3	.5	.4	.1	.1	3.3	3.7
Boots and shoes	4.7	3.9	4.1	3.4	.3	.2	.2	.2	.1	.1	5.2	5.2
Food and kindred products	5.7	6.3	3.9	3.8	.4	.5	1.3	1.9	.1	.1	5.7	5.4
Meat products	9.0	10.9	4.1	4.8	.5	.9	4.3	5.0	.1	.2	5.8	6.8
Grain-mill products	4.3	4.5	3.5	3.6	.2	.3	.5	.5	.1	.1	5.3	4.8
Tobacco manufactures	6.2	6.1	3.0	3.2	.4	.3	2.7	2.4	.1	.2	3.7	4.2
Paper and allied products	4.1	3.7	3.2	2.8	.5	.4	.3	.3	.1	.2	4.4	3.8
Paper and pulp	3.4	3.0	2.6	2.2	.4	.4	.3	.2	.1	.2	3.7	3.1
Paper boxes	5.7	5.9	4.8	4.7	.6	.6	.2	.5	.1	.1	6.0	5.7
Chemicals and allied products	2.5	2.3	1.5	1.5	.3	.3	.6	.4	.1	.1	2.7	2.8
Paints, varnishes, and colors	2.5	2.2	1.8	1.6	.3	.4	.3	.1	.1	.1	2.8	3.4
Rayon and allied products	1.7	1.5	1.1	1.1	.3	.2	.2	.1	.1	.1	1.4	1.3
Industrial chemicals, except explosives	2.8	2.5	1.5	1.6	.3	.3	.9	.5	.1	.1	3.0	3.0
Products of petroleum and coal	1.1	1.0	.7	.6	.1	.1	.2	.2	.1	.1	1.5	1.4
Petroleum refining	1.0	1.0	.6	.6	.1	.1	.2	.2	.1	.1	1.5	1.3
Rubber products	3.8	3.6	2.8	2.7	.3	.3	.5	.5	.2	.1	3.2	3.5
Rubber tires and inner tubes	2.6	2.2	1.9	1.7	.2	.2	.3	.2	.2	.1	1.8	2.0
Rubber footwear and related products	5.1	5.3	4.6	4.5	.3	.3	.1	.4	.1	.1	4.9	5.8
Miscellaneous rubber industries	5.4	5.4	3.8	3.6	.5	.6	.9	1.1	.2	.1	5.0	5.2
Miscellaneous industries	3.7	3.7	2.4	2.4	.3	.3	.9	.9	.1	.1	3.9	3.8

See footnotes at end of table.

TABLE 2.—*Monthly labor turn-over rates (per 100 employees) in selected groups and industries,[1] March 1947[2]*—Continued

Group and industry	Total separation		Quit		Discharge		Lay-off		Miscellaneous including military		Total accession	
	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
Nonmanufacturing												
Metal mining:[3]	5.5	4.8	4.7	4.1	0.3	0.3	0.3	0.2	0.2	0.2	5.7	5.3
Iron-ore	2.7	2.1	2.1	1.4	.1	.2	.1	.2	.4	.3	4.1	3.3
Copper-ore	6.9	6.3	6.0	5.6	.4	.4	.5	.2	(3)	.1	7.0	6.9
Lead and zinc ore	5.9	5.8	5.3	4.9	.4	.4	.1	.3	.1	.2	5.0	4.9
Coal mining:[3]												
Anthracite mining	2.4	1.7	1.6	1.3	(3)	(3)	.7	.3	.1	.1	1.7	1.8
Bituminous-coal mining	3.4	2.8	2.8	2.3	.2	.1	.2	.3	.2	.1	3.1	2.8
Public utilities:												
Telephone	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Telegraph	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)

[1] Since January 1943 manufacturing firms reporting labor turn-over have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products.
[2] Preliminary.
[3] Less than 0.05.
[4] Not available.
[5] For the month of February rates for mining industries are based on reports from 500 establishments employing 240,000 persons.

TABLE 3.—*Monthly labor turn-over rates for men and women in all manufacturing and selected groups,[1] March 1947[2]*

Industry group	Men's rates (per 100 men)						Women's rates (per 100 women)					
	Total separation		Quit		Accession		Total separation		Quit		Accession	
	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
All manufacturing	4.6	4.2	3.2	2.8	4.7	4.8	5.5	5.3	4.2	4.1	5.7	5.5
Durable goods	5.0	4.5	3.5	3.0	5.3	5.2	5.5	5.1	3.8	3.6	5.2	5.0
Nondurable goods	3.8	3.7	2.6	2.4	3.8	4.0	5.5	5.4	4.4	4.2	5.9	5.7
Iron and steel and their products	4.3	3.9	3.3	2.9	4.7	4.4	4.6	4.7	3.5	3.5	4.9	4.8
Electrical machinery	4.0	3.1	2.5	2.2	3.7	3.7	6.9	5.7	4.4	4.3	5.5	5.5
Machinery, except electrical	4.1	3.4	2.7	2.3	4.5	4.3	4.2	4.2	2.9	2.8	4.3	4.2
Transportation equipment except automobiles	7.7	8.1	3.9	3.6	8.4	7.9	5.2	6.8	2.7	3.1	4.6	3.9
Automobiles	4.5	3.5	3.1	2.5	4.4	5.5	5.2	4.0	3.1	2.9	5.0	6.2
Nonferrous metals and their products	4.7	4.4	3.2	3.0	4.7	4.4	5.9	5.0	4.2	3.8	5.6	5.3
Lumber and timber basic products	7.4	6.4	6.1	5.0	8.8	7.5	5.3	4.0	4.8	3.2	4.8	3.3
Furniture and finished lumber products	7.3	6.6	5.3	5.0	6.7	7.6	6.9	6.7	5.2	4.8	6.8	5.7
Stone, clay, and glass products	4.0	3.5	2.6	2.4	3.8	4.1	4.2	4.1	2.8	2.9	4.8	4.1
Textile-mill products	4.6	4.3	3.3	3.2	4.7	5.0	5.1	5.0	4.1	4.0	5.2	5.6
Apparel and other finished textile products	4.1	3.7	3.0	2.9	3.8	5.2	5.2	4.8	4.6	4.3	5.8	6.1
Leather and leather products	3.8	3.1	3.1	2.5	4.3	4.2	5.4	4.8	4.9	4.3	5.7	5.9
Food and kindred products	4.9	5.0	3.3	3.0	4.5	4.8	8.5	9.7	6.1	6.1	9.7	7.1
Tobacco manufactures	6.6	5.7	1.3	2.1	2.2	3.0	6.0	6.2	3.9	3.8	4.5	4.9
Paper and allied products	3.9	3.3	2.9	2.5	4.2	3.5	5.0	5.2	4.3	4.1	5.0	5.0
Chemicals and allied products	2.1	2.0	1.3	1.3	2.5	2.7	3.7	3.2	2.4	2.3	3.4	3.1
Products of petroleum and coal	1.0	1.0	.6	.6	1.4	1.4	3.3	2.1	2.9	1.8	3.0	1.7
Rubber products	3.2	3.0	2.4	2.2	2.6	2.9	5.0	5.0	3.9	3.9	4.8	5.0
Miscellaneous industries	3.3	3.2	2.0	1.9	3.3	3.3	4.5	4.8	3.2	3.5	5.1	4.7

[1] These figures are based on a slightly smaller sample than that for all employees, inasmuch as some firms do not report separate data for women. Rates for February are based on 6,200 reports covering 4,045,000 employees.
[2] Preliminary figures.

Trends of Earnings and Hours

Summary of Earnings and Hours Data for March 1947

THE AVERAGE WORKWEEK in manufacturing industries dropped to 40.1 hours in April 1947, according to preliminary estimates of the Bureau of Labor Statistics. In the nondurable-goods industries, where the decline amounted to one-half hour, weekly hours averaged less than 40 for the first time since 1942.

Production cut-backs combined with a return to the prewar seasonal pattern are reflected in the shorter workweek in the nondurable-goods industries. The textile, apparel, and leather industries all reported considerably shorter workweeks in April than in March.

April average hourly earnings in both durable- and nondurable-goods industries continued to rise. Increases in hourly earnings, however, were not sufficient to offset shorter hours, and weekly earnings in all manufacturing in April were slightly below those in March. Preliminary averages for April 1947 are as follows:

	Weekly earnings	*Weekly hours*	*Hourly earnings (in cents)*
All manufacturing	$47.50	40.1	118.6
Durable goods	50.34	40.5	124.4
Nondurable goods	42.42	39.6	112.2

Detailed data indicate that weekly earnings rose between February and March, reflecting primarily wage-rate increases. Among the durable-goods groups only lumber reported an appreciable decrease in weekly earnings. Reports from sawmills and logging camps, as well as planing mills, indicate that unfavorable weather conditions in March resulted in curtailing the hours worked and hence lowered weekly earnings.

Among the nondurable-goods industry groups, decreases in weekly earnings were reported in apparel, food, tobacco, and rubber. In each of these, seasonal factors reduced the workweek.

Increases in wage rates in March 1947 were reported by plants in many durable- and nondurable-goods industries. The most significant wage-rate increase was in the cotton-goods industry where earnings rose more than 5½ percent between February and March to 97.9 cents an hour. Hourly earnings in this industry were 24 percent

above those of March 1946, and weekly earnings averaged $39.22 as compared with $31.36 in March 1946.

One of the most significant decreases in weekly earnings was reported by the slaughtering and meat-packing industry. Weekly earnings in this industry dropped $2.81 between February and March, reflecting a decrease in the workweek of almost 2½ hours. Seasonal factors and resistance to high livestock prices were primarily responsible for reducing the workweek. Material shortages were responsible for reducing the workweek in the locomotive industry by more than 3 hours. Earnings in this industry dropped from $56.97 in February to $51.83 in March.

Earnings and hours in manufacturing and nonmanufacturing industries

MANUFACTURING

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1947	Feb. 1947	Jan. 1947
							Cents	*Cents*	*Cents*
All manufacturing	$47.72	$47.29	$47.10	40.4	40.4	40.6	118.0	117.0	116.1
Durable goods	50.31	49.72	49.60	40.7	40.5	40.5	123.6	122.9	122.4
Nondurable goods	44.94	44.69	44.47	40.2	40.4	40.7	111.9	110.7	109.4
Durable goods									
Iron and steel and their products	51.32	50.33	50.64	40.4	40.0	40.2	126.9	125.8	126.1
Blast furnaces, steel works, and rolling mills	51.77	50.67	50.89	38.9	38.5	38.2	133.3	131.7	133.2
Gray-iron and semisteel castings	54.49	54.04	54.43	42.3	42.1	42.7	129.0	128.3	127.5
Malleable-iron castings	53.06	53.03	52.92	40.8	41.1	40.9	129.9	129.1	128.8
Steel castings	52.23	49.72	50.68	40.0	38.6	39.0	130.5	128.8	129.8
Cast-iron pipe and fittings	48.71	47.90	49.51	43.0	42.6	43.9	113.2	112.4	112.8
Tin cans and other tinware	44.95	43.78	44.30	40.3	39.4	40.0	111.6	111.7	111.1
Wirework	50.50	49.83	50.05	41.5	41.2	41.3	122.6	121.0	121.3
Cutlery and edge tools	47.85	47.59	47.19	42.9	42.7	42.7	111.5	111.3	110.4
Tools (except edge tools, machine tools, files, and saws)	49.93	49.54	50.39	42.9	42.6	43.3	116.3	116.4	116.4
Hardware	47.37	46.94	46.41	41.4	41.6	41.6	113.7	112.8	111.9
Plumbers' supplies	49.80	48.51	51.27	41.2	40.3	42.3	122.3	121.0	121.9
Stoves, oil burners, and heating equipment not elsewhere classified	49.94	49.02	50.26	40.6	40.2	41.1	123.1	122.0	122.4
Steam and hot-water heating apparatus and steam fittings	50.97	50.29	50.12	40.9	40.7	40.7	124.5	123.6	123.1
Stamped and enameled ware and galvanizing	47.93	47.05	47.57	40.4	39.7	40.5	118.7	118.2	117.6
Fabricated structural and ornamental metalwork	51.53	50.20	49.82	41.8	41.0	40.5	124.6	123.2	122.9
Metal doors, sash, frames, molding, and trim [2]	53.54	50.93	51.06	41.9	41.2	41.8	127.7	123.7	122.1
Bolts, nuts, washers, and rivets	50.28	50.46	48.83	40.9	41.2	40.2	122.7	122.2	121.1
Forgings, iron and steel	59.74	59.30	59.01	41.6	41.5	41.3	143.5	142.8	143.0
Screw-machine products and wood screws	53.42	52.02	52.21	42.9	42.4	42.7	124.6	122.6	122.4
Steel barrels, kegs, and drums	51.89	52.00	49.44	41.0	41.1	39.9	125.7	126.1	123.4
Firearms	55.62	54.33	54.15	41.7	41.3	41.3	133.5	131.5	131.2
Electrical machinery	49.21	48.10	48.63	40.5	40.0	40.5	121.3	120.3	119.9
Electrical equipment	50.55	48.98	49.64	40.5	39.7	40.3	124.7	123.2	123.1
Radios and phonographs	42.37	41.72	42.33	39.1	38.6	39.4	108.4	108.0	107.4
Communication equipment	51.32	51.37	51.48	42.1	42.3	42.5	122.2	121.8	121.3
Machinery, except electrical	53.81	53.17	53.12	41.5	41.2	41.4	129.7	129.0	128.3
Machinery and machine-shop products	53.10	52.61	52.78	41.6	41.5	41.7	127.5	126.7	126.4
Engines and turbines	56.92	56.37	56.08	41.2	41.1	41.0	138.2	137.2	136.8
Tractors	53.12	51.96	51.96	40.5	39.8	39.5	131.1	130.5	131.5
Agricultural machinery, excluding tractors [3]	51.78	51.59	49.84	40.3	40.6	39.9	129.2	127.2	125.0

See footnotes at end of table.

Earnings and hours in manufacturing and nonmanufacturing industries—Continued

MANUFACTURING—Continued

Industry group and industry	Average weekly earnings[1]			Average weekly hours[1]			Average hourly earnings[1]		
	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1947	Feb. 1947	Jan. 1947
Durable goods—Continued									
Machinery, except electrical—Continued							*Cents*	*Cents*	*Cents*
Machine tools	$56.60	$55.99	$56.17	42.1	42.1	42.2	133.5	132.9	132.6
Machine-tool accessories	58.40	58.16	58.43	42.1	41.8	42.5	138.9	139.2	137.9
Textile machinery	53.73	53.67	53.15	43.1	43.1	43.2	124.7	124.5	122.9
Typewriters	48.13	47.95	47.56	40.9	40.9	40.8	117.6	117.1	116.5
Cash registers, adding and calculating machines	60.68	60.47	57.14	42.5	42.7	41.1	143.9	142.7	139.9
Washing machines, wringers and driers, domestic	51.26	47.05	50.86	41.8	40.0	42.4	122.5	117.6	119.8
Sewing machines, domestic and industrial	55.29	54.61	54.02	42.0	41.6	41.5	132.5	131.5	130.7
Refrigerators and refrigeration equipment	51.77	49.30	51.59	40.0	38.2	40.4	128.1	127.6	126.7
Transportation equipment, except automobiles	53.99	54.01	54.48	39.8	39.6	40.2	135.8	136.5	135.6
Locomotives	51.83	56.97	55.64	37.3	40.4	39.8	138.4	141.1	139.7
Cars, electric- and steam-railroad	53.61	53.03	52.17	41.0	41.3	40.6	130.3	128.9	128.3
Aircraft and parts, excluding aircraft engines	52.83	53.26	52.59	39.6	40.0	39.8	133.5	133.1	132.1
Aircraft engines	53.02	54.77	56.15	39.4	40.7	41.4	134.4	134.4	135.7
Shipbuilding and boatbuilding	56.01	54.69	57.05	39.7	38.1	40.2	141.0	143.6	142.0
Motorcycles, bicycles, and parts	53.33	50.47	50.29	42.2	40.0	40.5	126.3	125.9	124.0
Automobiles	55.51	54.29	54.13	39.8	38.8	38.9	139.5	139.9	139.0
Nonferrous metals and their products	50.28	50.16	49.91	41.0	41.0	41.0	122.7	122.2	121.7
Smelting and refining, primary, of nonferrous metals	50.69	50.05	49.39	41.0	40.6	40.4	124.4	123.5	122.7
Alloying and rolling and drawing of nonferrous metals except aluminum	53.87	54.14	53.45	41.3	41.5	41.3	130.1	130.1	129.3
Clocks and watches	44.43	44.88	43.83	40.6	41.0	39.7	110.1	109.6	110.3
Jewelry (precious metals) and jewelers' findings	48.47	48.37	48.84	41.7	42.1	42.4	116.7	115.4	115.7
Silverware and plated ware	58.48	57.34	57.86	45.7	45.6	46.2	128.0	125.8	125.4
Lighting equipment	47.59	48.71	47.91	39.4	40.4	39.9	120.9	121.2	120.0
Aluminum manufactures[2]	48.71	47.39	48.11	40.1	39.3	40.0	121.3	121.1	120.4
Lumber and timber basic products	40.59	41.20	39.11	41.1	42.1	40.6	98.7	97.8	96.2
Sawmills and logging camps	39.09	39.92	37.41	40.6	41.9	40.0	96.3	95.3	93.5
Planing and plywood mills	45.18	45.13	44.11	42.8	42.9	42.5	105.6	104.9	103.9
Furniture and finished lumber products	42.92	42.80	42.41	41.7	41.9	41.8	103.0	102.2	101.5
Furniture	44.33	44.20	43.35	41.9	42.0	41.5	105.9	104.9	104.6
Caskets and other morticians' goods[3]	45.82	44.79	45.02	42.1	42.1	42.7	107.9	106.0	105.2
Wood preserving	37.73	37.31	36.40	40.4	40.2	39.5	93.9	92.8	92.2
Stone, clay, and glass products	46.26	45.53	45.58	40.4	40.2	40.5	114.4	113.2	112.5
Glass and glassware	48.47	46.88	47.78	39.5	38.7	39.4	122.0	121.2	121.4
Glass products made from purchased glass	43.28	43.47	42.36	41.1	41.7	42.0	102.4	103.0	99.3
Cement	45.12	44.67	43.79	41.6	41.5	40.6	108.5	107.7	107.9
Brick, tile, and terra cotta	42.78	42.35	42.22	40.1	40.0	40.3	106.3	105.6	104.1
Pottery and related products	43.92	42.69	41.97	37.9	37.2	37.7	115.4	114.9	112.1
Gypsum	51.95	51.14	51.49	46.3	45.9	46.2	112.2	111.4	111.4
Lime	46.04	45.00	43.83	46.5	45.7	44.7	98.9	98.0	98.3
Marble, granite, slate, and other products	45.30	44.18	43.88	42.0	41.9	42.1	107.5	105.6	104.5
Abrasives	50.63	49.46	52.70	40.4	40.7	43.2	125.4	121.6	122.0
Asbestos products	53.03	52.73	51.91	43.8	43.9	43.2	121.0	120.1	120.2
Nondurable goods									
Textile-mill products and other fiber manufactures	41.01	40.32	39.29	40.0	40.4	40.5	102.4	99.7	97.0
Cotton manufactures, except smallwares	39.22	37.56	37.06	40.1	40.5	40.6	97.9	92.7	91.4
Cotton smallwares	40.69	40.59	40.48	40.4	40.5	41.0	100.8	100.4	98.7
Silk and rayon goods	41.94	41.45	40.21	41.5	41.6	41.1	101.2	99.6	97.5
Woolen and worsted manufactures, except dyeing and finishing	46.28	47.44	43.10	40.1	41.0	41.3	115.5	115.6	104.5
Hosiery	38.41	38.40	38.35	37.8	38.1	38.1	101.7	100.9	100.7
Knitted cloth	40.72	40.89	39.03	41.6	41.3	40.9	98.4	98.9	95.4
Knitted outerwear and knitted gloves	36.75	36.68	36.49	38.5	38.4	38.4	94.7	94.8	94.4
Knitted underwear	34.86	34.22	33.70	38.7	38.8	38.7	89.9	88.1	86.9
Dyeing and finishing textiles, including woolen and worsted	46.12	45.75	45.67	42.6	42.9	43.3	108.3	106.5	105.5

See footnotes at end of table.

Earnings and hours in manufacturing and nonmanufacturing industries—Continued

MANUFACTURING—Continued

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1947	Feb. 1947	Jan. 1947
Nondurable goods—Continued									
Textile-mill products and other fiber manufactures—Continued							*Cents*	*Cents*	*Cents*
Carpets and rugs, wool	$47.12	$46.51	$46.51	40.8	40.5	40.7	115.8	114.9	114.5
Hats, fur-felt	49.22	49.60	50.15	38.0	38.9	39.1	129.7	127.2	127.7
Jute goods, except felts	41.57	41.74	40.09	43.2	43.4	43.9	97.9	97.9	92.8
Cordage and twine	40.00	39.51	39.14	40.6	41.0	41.1	98.4	96.4	95.1
Apparel and other finished textile products	38.53	38.84	38.22	36.8	37.0	36.9	104.6	104.9	103.7
Men's clothing, not elsewhere classified	41.83	41.71	41.70	37.6	37.8	37.8	110.9	109.7	109.5
Shirts, collars, and nightwear	32.11	32.32	32.17	37.0	37.2	37.1	86.9	86.9	86.9
Underwear and neckwear, men's	34.42	33.49	33.37	36.5	36.6	36.7	94.3	91.5	90.8
Work shirts	25.24	25.69	25.43	34.7	35.8	34.7	72.7	71.6	73.1
Women's clothing, not elsewhere classified	47.75	48.77	47.30	36.1	36.2	35.7	129.3	131.4	129.7
Corsets and allied garments	36.34	36.33	35.21	38.9	39.0	37.8	93.5	93.2	93.0
Millinery [4]	51.70	53.73	48.40	37.9	38.9	36.6	131.4	131.7	125.6
Handkerchiefs	31.17	30.60	28.95	36.5	36.5	35.3	85.8	84.1	82.1
Curtains, draperies, and bedspreads	28.70	28.51	28.57	33.8	33.8	34.6	85.6	85.1	82.5
Housefurnishings other than curtains, etc.	34.96	34.91	34.85	37.3	37.5	38.1	92.8	92.6	91.0
Textile bags	34.78	35.10	35.92	41.3	42.1	42.7	84.3	83.5	84.1
Leather and leather products	40.33	40.29	40.18	39.5	39.5	39.3	102.1	102.1	102.3
Leather	49.88	49.65	48.49	41.4	41.6	41.3	120.4	119.3	117.4
Boot and shoe cut stock and findings	37.87	37.79	37.84	38.1	38.8	38.8	99.9	98.4	98.0
Boots and shoes	39.03	38.96	39.05	39.4	39.2	39.1	98.5	98.9	99.5
Leather gloves and mittens	31.47	31.43	32.10	34.9	35.0	35.0	89.3	89.6	92.2
Trunks and suitcases	40.87	41.60	40.36	39.5	39.9	38.7	103.6	103.8	104.0
Food	46.02	46.35	47.31	42.3	42.6	43.6	108.7	108.7	108.4
Slaughtering and meat packing	50.01	52.82	57.20	41.9	44.3	47.5	119.2	119.3	120.6
Butter	43.02	42.53	42.24	44.7	45.0	45.6	95.3	94.3	93.6
Condensed and evaporated milk	47.04	46.64	46.32	46.2	46.2	46.6	101.9	101.0	99.5
Ice cream	47.58	47.84	48.79	45.5	45.9	46.8	100.9	99.8	100.5
Flour	54.52	53.64	55.18	49.2	48.8	49.9	110.4	109.7	110.6
Cereal preparations	50.03	49.13	48.48	41.4	41.5	40.5	120.8	118.4	119.6
Baking	45.17	45.79	46.32	43.2	43.3	43.9	105.3	105.8	105.6
Sugar refining, cane	43.47	41.53	38.83	40.5	39.5	38.8	107.2	105.2	100.1
Sugar, beet	44.79	47.29	44.34	37.4	40.5	40.5	119.9	116.9	109.5
Confectionery	37.99	37.75	37.06	40.2	40.0	39.8	92.7	92.7	91.4
Beverages, nonalcoholic	41.25	40.85	41.13	42.0	42.3	42.7	97.4	96.5	95.9
Malt liquors	57.83	56.88	57.23	41.8	41.3	41.9	138.1	137.5	136.6
Canning and preserving	37.44	36.86	36.55	37.4	36.9	37.6	99.9	100.2	97.5
Tobacco manufactures	35.19	35.44	36.74	37.5	37.8	39.2	93.9	93.7	93.8
Cigarettes	40.23	40.76	41.36	38.7	39.1	39.7	103.9	104.3	104.1
Cigars	31.74	31.98	33.80	36.7	37.2	39.0	85.9	85.6	86.2
Tobacco (chewing and smoking) and snuff	32.79	32.03	33.16	36.3	36.0	37.6	90.3	88.9	88.3
Paper and allied products	47.96	47.48	47.05	43.2	43.2	43.2	111.0	109.9	108.8
Paper and pulp	51.27	50.98	50.18	44.3	44.3	44.2	115.7	114.9	113.4
Envelopes	45.21	44.99	44.68	42.7	42.6	42.8	106.4	105.6	104.3
Paper bags	40.43	39.93	40.52	40.3	39.9	40.2	100.6	100.1	100.9
Paper boxes	44.10	43.58	43.58	42.1	42.0	42.3	105.5	103.9	103.0
Printing, publishing, and allied industries	58.24	56.74	56.60	40.3	40.1	41.0	144.5	141.5	138.1
Newspapers and periodicals	64.22	63.00	62.08	38.8	38.6	38.9	163.3	160.7	157.5
Printing, book and job	55.49	54.07	54.19	41.1	40.8	42.0	136.3	133.6	129.7
Lithographing	58.37	56.55	57.54	41.8	42.6	43.5	139.7	132.6	132.3
Chemicals and allied products	48.64	48.17	47.39	41.3	41.4	41.5	117.7	116.5	114.3
Paints, varnishes, and colors	51.63	50.34	49.69	42.5	42.3	42.1	121.6	119.2	118.1
Drugs, medicines, and insecticides	42.86	43.15	41.86	41.1	41.1	40.4	104.4	105.2	103.6
Soap	54.12	53.46	53.08	42.5	43.1	42.8	127.2	124.0	124.1
Rayon and allied products	47.92	47.31	44.14	39.2	39.3	39.5	122.1	120.5	111.7
Chemicals, not elsewhere classified	55.47	55.10	54.77	41.0	41.0	41.3	135.2	134.2	132.7
Explosives and safety fuses	50.60	50.07	53.08	39.0	39.4	41.0	129.9	126.9	129.5
Ammunition, small-arms	48.27	48.55	48.14	41.6	41.4	41.5	116.1	117.2	116.1
Cottonseed oil	35.38	35.77	35.91	50.4	51.7	52.2	70.6	69.2	68.8
Fertilizers	34.42	33.44	33.44	42.3	41.4	41.3	81.4	80.8	81.0
Products of petroleum and coal	56.53	55.41	55.24	40.2	40.1	40.2	140.8	138.2	137.2
Petroleum refining	59.15	57.75	57.74	39.8	39.8	39.9	148.8	145.1	144.7
Coke and byproducts	49.37	48.88	48.11	39.7	39.6	39.5	122.8	123.1	121.2
Roofing materials	53.20	52.59	51.99	44.6	44.0	44.6	119.4	119.6	116.7

See footnotes at end of table.

Earnings and hours in manufacturing and nonmanufacturing industries—Continued

MANUFACTURING—Continued

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1947	Feb. 1947	Jan. 1947	Mar. 1947	Feb. 1947	Jan. 1947
Nondurable goods—Continued							*Cents*	*Cents*	*Cents*
Rubber products	$53.01	$54.06	$54.03	39.8	40.6	40.6	133.1	133.1	133.0
Rubber tires and inner tubes	58.01	59.90	59.78	38.1	39.3	39.5	151.5	151.7	151.1
Rubber boots and shoes	45.34	45.83	46.06	41.4	42.0	41.9	109.0	109.2	109.9
Rubber goods, other	48.38	48.27	48.12	41.9	42.1	42.0	115.6	114.7	114.6
Miscellaneous industries	46.70	46.06	45.98	41.0	41.0	41.1	113.9	112.3	112.0
Instruments (professional and scientific), and fire-control equipment	51.95	51.50	52.00	39.8	39.7	40.1	128.6	127.9	127.3
Pianos, organs, and parts	51.42	53.20	53.37	41.0	42.3	42.5	125.7	126.2	125.9
NONMANUFACTURING									
Mining:									
Anthracite	$64.84	$57.42	$62.40	39.8	35.1	39.1	163.2	163.7	159.4
Bituminous coal	64.90	65.30	69.54	43.7	43.6	46.7	148.4	149.1	149.1
Metal	51.63	52.01	50.65	41.6	42.0	41.2	124.1	123.8	122.9
Iron	48.54	48.71	46.18	40.2	40.5	39.1	120.8	120.3	118.1
Copper	54.58	54.94	54.38	44.1	44.3	44.0	123.6	124.1	123.7
Lead and zinc	52.62	53.19	52.43	40.6	41.4	40.9	129.5	128.6	128.3
Quarrying and nonmetallic	46.41	45.34	45.55	43.5	42.8	43.1	106.9	106.2	105.8
Crude petroleum production	56.25	55.86	56.02	39.6	40.3	41.3	142.1	139.0	135.5
Public utilities:									
Telephone	43.19	43.31	43.37	38.0	38.0	38.4	113.7	114.1	113.2
Telegraph [4]	46.86	47.15	46.83	43.7	44.0	43.8	107.2	107.1	106.9
Electric light and power	54.43	55.37	54.11	41.0	41.6	41.9	134.1	135.2	131.3
Street railways and busses	55.82	56.04	55.98	47.8	47.6	47.7	116.2	116.3	116.5
Trade:									
Wholesale	50.80	50.87	50.05	40.8	40.8	41.5	123.1	123.0	119.7
Retail [5]	35.31	35.27	35.02	40.0	40.1	39.9	96.3	95.7	95.3
Food	42.12	42.12	41.50	39.9	40.1	40.1	102.5	102.1	101.2
General merchandise [5]	29.91	29.98	29.75	36.0	35.9	35.9	81.6	81.2	81.1
Apparel	35.99	35.85	35.89	36.8	37.2	36.9	97.3	95.2	95.7
Furniture and housefurnishings	46.96	45.85	45.86	42.1	41.9	42.2	115.2	111.6	112.5
Automotive	49.58	49.69	49.01	45.5	45.8	45.7	110.0	109.4	109.2
Lumber and building materials	44.91	44.73	44.30	42.9	42.9	43.0	105.3	105.6	104.3
Hotels (year-round) [6]	29.09	28.91	28.62	44.7	44.3	43.8	64.2	65.4	64.8
Power laundries	32.18	31.78	32.46	42.4	42.5	43.3	75.9	74.8	74.5
Cleaning and dyeing	36.41	34.93	36.29	41.7	41.1	42.3	87.8	86.1	87.4
Security brokerage	62.91	63.87	62.56	(7)	(7)	(7)	(7)	(7)	(7)
Insurance	50.08	50.43	52.46	(7)	(7)	(7)	(7)	(7)	(7)

[1] These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked or received pay during any part of one pay period ending nearest the 15th of March 1947. The figures shown below relate to firms reporting man-hour data in all cases except security brokerage and insurance; weekly earnings are based on a slightly larger sample (see footnote 1 in tables 1 and 4).

Manufacturing.—32,400 establishments, 7,521,000 production workers.
Mining.—2,500 establishments, 318,000 production workers.
Public utilities.—6,700 establishments, 543,000 employees.
Wholesale trade.—8,900 establishments, 250,000 employees.
Retail trade.—28,600 establishments, 722,000 employees.
Hotels (year-round).—1,000 establishments, 87,000 employees.
Power laundries and cleaning and dyeing.—1,300 establishments, 63,000 production workers.
Security brokerage and insurance.—3,600 establishments, 170,000 employees.

For manufacturing, mining, power laundries, and cleaning and dyeing industries, the data relate to production workers only. For the remaining industries the data relate to all employees except high-paid executives and officials. Data for the current and immediately preceding months are subject to revision.

[2] New series beginning with January 1947 figures shown in table; not comparable with previously published data:

Metal doors, sash, frames, molding, and trim.—Comparable December 1946 data are $52.33, 43.2 hours, and 121.2 cents.
Aluminum manufactures.—Comparable December 1946 data are $48.34.

[3] Revisions have been made as follows in the data for earlier months:

Agricultural machinery, excluding tractors.—July through December 1946 to $47.55, $48.66, $50.42, $50.34, $49.65, and $49.75; 119.9, 122.4, 124.7, 124.5, 124.8, and 125.1 cents.
Caskets and other morticians' goods.—November and December 1946 to $43.14 and $45.02; 103.5 and 103.7 cents.
Retail trade.—December 1946 to $34.06.
General merchandise.—December 1946 to $29.33.

[4] *Millinery.*—Revised series beginning January 1945; not comparable with previously published data. Comparable data are available upon request.

[5] Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and of cable companies.

[6] Cash payments only; additional value of board, room, and tips, not included.

[7] Not available.

Trend of Factory Earnings, 1939 to March 1947

AVERAGE EARNINGS of factory workers, summarized in the accompanying table for selected months from January 1939 to March 1947,[1] are on a gross basis (i. e., before deductions for social security, income taxes, bond purchases, etc.).

Earnings of factory workers in selected months, 1939 to March 1947

Month and year	Average weekly earnings			Average hourly earnings			Average hourly earnings exclusive of overtime[1] weighted by January 1941 employment		
	All manufacturing (1)	Durable goods (2)	Nondurable goods (3)	All manufacturing (4)	Durable goods (5)	Nondurable goods (6)	All manufacturing (7)	Durable goods (8)	Nondurable goods (9)
1939: January	$23.19	$25.33	$21.57	$0.632	$0.696	$0.583	$0.641	$0.702	$0.575
1940: January	24.56	27.39	22.01	.655	.717	.598	.652	.708	.589
1941: January	26.64	30.48	22.75	.683	.749	.610	.664	.722	.601
1942: January	33.40	38.98	26.97	.801	.890	.688	.751	.826	.668
July	36.43	42.51	28.94	.856	.949	.725	.783	.863	.696
October	38.89	45.31	30.66	.893	.990	.751	.807	.888	.718
1943: January	40.62	46.68	32.10	.919	1.017	.768	.819	.905	.726
April	42.48	48.67	33.58	.944	1.040	.790	.833	.916	.742
July	42.76	48.76	34.01	.963	1.060	.806	.850	.939	.753
October	44.86	51.26	35.18	.988	1.086	.824	.863	.950	.768
December	44.58	50.50	35.61	.995	1.093	.832	.873	.962	.775
1944: January	45.29	51.21	36.03	1.002	1.099	.838	.877	.965	.780
April	45.55	51.67	36.16	1.013	1.110	.850	.889	.976	.794
July	45.43	51.07	37.05	1.018	1.116	.862	.901	.993	.802
October	46.94	53.18	37.97	1.031	1.129	.878	.908	.991	.817
December	47.44	53.68	38.39	1.040	1.140	.883	.912	.997	.820
1945: January	47.50	53.54	38.66	1.046	1.144	.891	.920	1.005	.827
April	47.12	52.90	38.80	1.044	1.138	.899	.925	1.007	.836
July	45.45	50.66	38.59	1.033	1.127	.902	.933	1.017	.842
October	40.97	44.23	37.76	.985	1.063	.909	.942	1.014	.863
December	41.21	44.08	38.52	.994	1.066	.927	.957	1.028	.880
1946: January	41.15	43.67	38.75	1.004	1.070	.941	.970	1.037	.895
April	42.88	45.71	40.13	1.058	1.131	.988	1.027	1.102	.946
July	43.38	46.24	40.46	1.093	1.177	1.009	1.067	1.155	.970
October	45.73	48.90	42.45	1.130	1.202	1.056	1.095	1.169	1.014
December	46.86	49.46	44.15	1.145	1.213	1.076	1.106	1.177	1.028
1947: January	47.10	49.60	44.47	1.161	1.224	1.094	1.120	1.188	1.046
February[2]	47.29	49.72	44.69	1.170	1.229	1.107	1.131	1.194	1.061
March[2]	47.72	50.31	44.94	1.180	1.236	1.119	1.139	1.198	1.076

[1] Overtime is defined as work in excess of 40 hours per week and paid for at time and one-half. The method of estimating average hourly earnings exclusive of overtime makes no allowance for special rates of pay for work done on major holidays. Estimates for the months of January, July, September, and November, therefore, may not be precisely comparable with those for the other months, in which important holidays are seldom included in the pay periods for which manufacturing establishments report to the Bureau. This characteristic of the data does not appear to invalidate the comparability of the figures for January 1941 with those for the preceding and following months.

[2] Preliminary.

[1] Compare Trends in Factory Wages, 1939–43, in Monthly Labor Review, November 1943 (p. 869), especially table 4 (p. 879). For detailed data regarding weekly earnings, see preceding table.

Weekly earnings in all manufacturing averaged $47.72 in January 1947—105.8 percent above the average in January 1939, 79.1 percent above January 1941, and 22.7 percent above October 1942. Weekly earnings for March 1947 increased 12.9 percent above March 1946.

Gross hourly earnings in all manufacturing averaged 118.0 cents in March 1947—86.7 percent above the average in January 1939, 72.8 percent above January 1941, and 32.1 percent above October 1942.

Average hourly earnings exclusive of overtime, as shown in columns 7 to 9, are weighted by man-hours of employment in the major divisions of manufacturing for January 1941. Overtime is defined as work in excess of 40 hours per week and paid for at time and a half. The method of estimating average hourly earnings exclusive of overtime makes no allowance for special rates of pay for work done on major holidays or the effect of extra pay for work on supplementary shifts. For all manufacturing, the average hourly earnings, exclusive of overtime, in March 1947 were 113.9 cents per hour—77.7 percent above January 1939, 71.5 percent above January 1941, and 41.1 percent above October 1942.

Recent Publications of Labor Interest

June 1947

Cooperative Movement

Handbook on major regional farm supply purchasing cooperatives, 1944 and 1945. By Joseph G. Knapp and Jane L. Scearce. Washington, U. S. Department of Agriculture, Farm Credit Administration, Cooperative Research and Service Division, 1946. 45 pp.; processed. (Miscellaneous report No. 102.)

Data for the 18 major regional associations, showing operating facilities, business done (in terms of money and volume of various commodities handled), and earnings (profits).

Cooperative frozen-food locker plants—organization and operation. By S. T. Warrington and Paul C. Wilkins. Washington, U. S. Department of Agriculture, Farm Credit Administration, Research and Service Division, 1946. 82 pp., bibliography, maps, plans, illus. (Circular C–127.) 25 cents, Superintendent of Documents, Washington.

Intended for use of groups wishing to organize and operate a cold-storage locker and processing plant. Describes organizing procedures, financing, plant design, selection of personnel, bookkeeping, and elements of expense.

Credit union development in Wisconsin. By Eli Shapiro. New York, Columbia University Press, 1947. 174 pp., chart. (Columbia University studies in history, economics and public law, No. 525.) $2.50.

Detailed examination, on the basis of State official records (mostly as of 1939), of Wisconsin credit unions. Among the topics covered are assets and liabilities, loans (including mortgage loans), investments, and earnings. One of the most valuable chapters relates to liquidations and reasons therefor.

Report of the 77th annual cooperative congress of the Cooperative Union, Ltd., Blackpool, June 10–12, 1946. Manchester, England, Cooperative Union, Ltd., [1946?]. 550 pp. 10s.

In addition to speeches and reports, contains detailed statistics on the various central organizations of the British cooperative movement and on the retail cooperatives.

Cost and Standards of Living

The changing composition of family budgets for selected groups of Corn Belt farmers, 1940–42. By Willard W. Cochrane and Mary D. Grigg. Washington, U. S. Department of Agriculture, Bureau of Agricultural Economics, 1946. 107 pp., charts; processed.

Quantity and cost budget for a single working woman. Quantity and cost budgets for dependent families or children. Quantity and cost budgets for three income levels: 1, Family of an executive; 2, Family of a white-collar worker; 3, Family of a wage earner. Berkeley, University of California, Heller Committee for Research in Social Economics, 1946. 17, 56, 107 pp.; processed. 35 cents, 75 cents, $1, respectively.

Las condiciones económico-sociales y el costo de la vida de la clase media en Bogotá. Bogotá, Contraloría General de la República, Dirección Nacional de Estadística, 1946. 99 pp., charts. (Supplement to Nos. 19–20 of Anales de Economía y Estadística, October 1946.)

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

Las condiciones económico-sociales y el costo de la vida de la clase obrera en la ciudad de Honda [Colombia]. Bogotá, Contraloría General de la República, Dirección Nacional de Estadística, 1946. 95 pp., charts. (Supplement to Nos. 15–16 of Anales de Economía y Estadística, June 1946.)

One of several studies of cost of living of the working class in Colombia, made by the national statistical office.

Economic and Social Problems

Can we prevent depressions? Washington, Kiplinger Magazine, 1947. 24 pp.

Special report from the editors of the Kiplinger Magazine on the problems of depression and what the President's Council of Economic Advisers is doing to smooth out the cycle of "boom and bust."

National product since 1869. By Simon Kuznets. New York, National Bureau of Economic Research, Inc., 1946. 239 pp. (Publication No. 46.) $3.

Intended chiefly for reference by students and technical users, this report is largely a collection of statistical tables with notes describing sources of data and procedures. Part I contains annual estimates of national product, 1919–43; part II, the same totals and categories as part I, by decades, 1869–1938; part III, discussion of derivation of the proportion of flow of goods to consumers accounted for by services not embodied in new commodities; and part IV, analysis and recalculation of national wealth since 1880, including the allocation of capital formation by categories of users.

Pattern of consumer spending. (*In* Conference Board Business Record, National Industrial Conference Board, Inc., New York, March 1947, pp. 53–61, charts.)

Review of consumer expenditure and income, the retail trade record, and volume of buying with borrowed funds in 1946 as compared with earlier years.

The money value of a man. By Louis I. Dublin and Alfred J. Lotka. New York, Ronald Press Co., 1946. 214 pp., charts. Rev. ed. $6.

Various aspects of the economic value of the breadwinner of a family are discussed from an actuarial point of view. Revised tables of valuation, by age and income of worker, are appended, as well as age schedules of family consumption units and of savings, together with other basic data.

American capitalism vs. Russian communism. Compiled by Clarence A. Peters. New York, H. W. Wilson Co., 1946. 305 pp., bibliography. (Reference shelf, Vol. 18, No. 7.) $1.25.

Neutral presentation of articles by numerous authors interpreting Russia, describing the Soviet and American ways of life (including various aspects of labor), and criticizing the Soviet and American systems. All important shades of opinion are represented.

Quadripartite rule in Berlin. By Anne Whyte. (*In* International Affairs, New York, January 1947, pp. 30–41. $1.25.)

Describes the machinery and activities of the Allied Control Authority in Berlin during the first year of its existence. An appendix lists the legislative measures (some dealing with labor) of the Authority from August 1945 to August 1946.

Employment and Unemployment

Full employment and free enterprise. By John H. G. Pierson. Washington, American Council on Public Affairs, 1947. 183 pp. $2.50 (paper) or $3 (cloth).

Brings together papers which originally appeared as articles or pamphlets, or were presented as addresses during the war and reconversion periods, while the author was engaged in the analysis of postwar employment problems. The papers are mainly concerned with the role of fiscal policy in promoting full employment.

Nature and extent of frictional unemployment. Washington, U. S. Bureau of Labor Statistics, 1947. 10 pp. (Serial No. R. 1872; reprinted from Monthly Labor Review, January 1947.) Free.

Labor requirements for construction materials: Part III, Concrete pipe. Washington, U. S. Bureau of Labor Statistics, 1947. 8 pp. (Bull. No. 888—3.) 10 cents, Superintendent of Documents, Washington.

State and regional variations in prospective labor supply. Washington, U. S. Bureau of Labor Statistics, 1947. 34 pp., maps. (Bull. No. 893; reprinted from Monthly Labor Review, December 1946, with additional data.) 15 cents, Superintendent of Documents, Washington.

An index of engineering unemployment [in Australia], 1852–1943. By N. G. Butlin. (*In* Economic Record, Melbourne, December 1946, pp. 241–260, chart. 5s. net.)
Based on trade-union records.

Seasonal variations of employment in the automobile and parts industry [in Canada]. (*In* Labor Gazette, Department of Labor, Ottawa, March 1947, pp. 287–292, charts.)

Guaranteed Employment and Wages

The guarantee of work and wages. By Joseph L. Snider. Boston, Harvard University, Graduate School of Business Administration, 1947. 191 pp. $2.75.
Part I summarizes industry's experience with guaranty plans, part II suggests steps that management and labor might take toward greater security of work and wages, and part III discusses some long-range objectives and long-range measures for employment security.

The guaranteed annual wage. By A. D. H. Kaplan and others. New Wilmington, Pa., Economic and Business Foundation, 1946. 52 pp., bibliography, charts. (American economic policy series.) 75 cents.
Addresses at a conference sponsored by the Foundation.

Guaranteed wages. Report to the President by the Advisory Board, Office of War Mobilization and Reconversion, U. S. Office of Temporary Controls. Washington, 1947. 473 pp., charts. $2, Superintendent of Documents, Washington.

The guaranteed wage. (*In* Fortune, New York, April 1947, pp. 120–123, 140, 142. $1.)
Summarizes and evaluates the progress of guaranteed-wage plans and explores their prospects in American industry, with particular reference to the preliminary report of the Advisory Board of the U. S. Office of War Mobilization and Reconversion. The final report of the Advisory Board is listed immediately above.

Plus and minus of the annual wage. By Burnham Finney. (*In* American Machinist, New York, February 27, 1947, pp. 85–92. 35 cents.)
Discusses problems and "obstacles" that stand in the way of wide adoption of guaranteed annual wage plans, and gives summary data from the preliminary report of the Advisory Board of the U. S. Office of War Mobilization and Reconversion.

Handicapped Workers

Adjustment to physical handicap and illness: A survey of the social psychology of physique and disability. By Roger G. Barker, Beatrice A. Wright, Mollie R. Gonick. New York, Social Science Research Council, 1946. 372 pp., bibliographies. (Bull. No. 55.) $2.
Summarizes results of research studies on the relation between physique or impairment and personality in the adjustment of the physically handicapped or ill. One chapter is devoted to employment of the disabled.

An evaluation of some factors in the development of occupational deafness. By Walter R. MacLaren, M.D., and Albert L. Chaney. (*In* Industrial Medicine, Chicago, March 1947, pp. 109–115, bibliography, charts. 75 cents.)
Data from a survey of noise in airframe manufacturing and from an analysis of audiograms of workers exposed. The study revealed that noise levels above the safety borderline (established at 100 decibels) are common in metal fabrication, riveting being an important noise hazard. Development of hearing loss, recovery from noise exposure, and noise control are discussed. Preemployment and periodic audiometric tests of workers, in departments where noise exceeds the safety level, are suggested.

The work efficiency of the disabled. By George Lavos. (*In* Journal of Rehabilitation, Des Moines, Iowa, April 1947, pp. 3–12, bibliography. 50 cents.)

Techniques and findings of nine objective studies are summarized and evaluated for future research.

Physical restoration services in Georgia, fiscal year 1945. Washington, Federal Security Agency, Office of Vocational Rehabilitation, 1946. 11 pp. (Rehabilitation service series, No. 3.)

Report on a survey of some 500 vocationally disabled persons, over half of whom were placed in employment during the fiscal year 1944–45. Shows services rendered; origin and nature of impairment, race, and sex of persons rehabilitated; types of jobs provided; and weekly wages.

Housing

The American family and its housing. (*In* American Sociological Review, Evanston, Ill., April 1947, pp. 137–230. $1.)

Papers on housing and related questions, and committee reports, delivered at annual meeting of American Sociological Society at Chicago in December 1946.

The future of housing. By Charles Abrams. New York, Harper & Bros., 1946. 428 pp., bibliography, charts, illus. $5.

The author examines various aspects of the housing problem, including the labor situation, and discusses activities of Federal Government and local housing agencies. He looks to planning (city planning in particular) and housing reform for a solution of the problem, instrumentalities needed being a Federal planning agency, a national housing agency, local planning agencies, and local housing agencies.

Rental housing in 1947. Washington, U. S. National Housing Agency, 1947. 18 pp., paster, illus.; processed. (Veterans emergency housing program, Community action bull. No. 8.)

Deals with the desirability of providing rental housing, and means of attaining the goal set.

Annual report of the Commissioner of Housing to the Governor and the Legislature of the State of New York. Albany, 1946. 77 pp., maps, illus.

Summary of the emergency housing program for veterans and permanent housing programs of the State, with statistics of operation.

Industrial Accidents and Accident Prevention

Accident prevention manual for industrial operations. Chicago, National Safety Council, Inc., 1946. 534 pp., charts, illus. $7 to members, $14 to nonmembers of Council.

Specific accident-prevention measures are described in detail under the following chapter headings: Plant design and layout; Construction and demolition; Permanent equipment and facilities; Guarding and operating machinery; Materials handling and storage; Electrical hazards; Chemical hazards; Fire and explosion hazards; Flammable liquids; Hand and portable power tools; Commercial vehicle operation; Personal protective equipment; Industrial hygiene; Safety and program organization. Numerous references to other technical manuals and to accepted safety standards are given.

Concrete mixers and pavers. (*In* National Safety News, National Safety Council, Inc., Chicago, April 1947, pp. 38–40, 93, diagrams, illus. 60 cents to nonmembers of Council.)

Lists safety precautions for protection of workers and others in operation of concrete mixers and pavers.

Fire hazards of the plastics industry. Potential hazards in molten salt baths for heat treatment of metals. Fire and explosion hazards of the manufacture of synthetic rubber. Processes, hazards, and protection involved in the manufacture of spirituous liquors. New York, National Board of Fire Underwriters, 1946 and 1947. 53, 40, 31, 60 pp., respectively. (Research reports Nos. 1, 2, 4, 5.)

Processes, hazards, and safety measures are covered in the four reports. Nos. 1, 2, and 4 include bibliographies.

Fatal industrial accidents in Canada, 1946, analyzed according to industries, causes, Provinces, and months. (*In* Labor Gazette, Department of Labor, Ottawa, March 1947, pp. 472–482.)

A summary table shows nonfatal as well as fatal accidents, by Province and year, 1939 and 1941–46.

Annual report of the Chief Inspector of Factories, [Great Britain], for the year 1945. London, [Ministry of Labor and National Service], 1946. 104 pp. (Cmd. 6992.) 2s. net, H. M. Stationery Office, London.

Reviews the state of safety, health, and welfare in British factories at the end of World War II and makes comparisons with the situation in the First World War. The work of factory inspectors and safety committees is briefly described, as well as that of advisory committees which were set up in several industries to consider improvements in working conditions. Appendixes give detailed statistics of accidents in 1945.

Industrial Hygiene

Industrial health and medical rehabilitation at an atomic energy laboratory. By Jean Spencer Felton, M.D. (*In* Journal of Rehabilitation, Des Moines, Iowa, February 1947, pp. 3–12, bibliography. 50 cents.)

Describes a health-protection program adopted to protect employees against unusual hazards of radiation, and the medical rehabilitation of physically impaired workers.

A study of the hazards of exposure to metallic fumes and dust in brass foundries. By William W. Stalker. (*In* Journal of Industrial Hygiene and Toxicology, Baltimore, Md., March 1947, pp. 96–112, bibliography, illus.; also reprinted.)

A study of pneumonia in shipyard workers, with special reference to welders. By Morris F. Collen. (*In* Journal of Industrial Hygiene and Toxicology, Baltimore, Md., March 1947, pp. 113–122, bibliography. $1.25.)

The annual incidence rate of pneumococcic pneumonia among about 2,800 wartime shipyard workers treated at the Permanente Foundation Hospital in Oakland, Calif., between September 1942 and May 1945 was 12.4 per thousand workers; death resulted in 5.8 percent of the cases. No significant differences in the annual incidence and death rates from pneumonia were found among the various shipyard occupational groups studied. Other important findings are recorded in the article.

Action conjuguée des médecins du travail et des caisses de sécurité sociale en matière de prévention des maladies professionnelles. By Pierre Laroque and Henri Desoille. (*In* Revue Française du Travail, Ministère du Travail et de la Sécurité Sociale, Paris, February 1947, pp. 116–120.)

Concise explanation of collaboration of labor inspectors and industrial medical services with social-security organizations in France, in the effort to prevent occupational accidents and diseases. References to pertinent legislation of 1946 and 1947 are included.

Legislación sobre seguridad e higiene del trabajo, [Spain]. Madrid, Ministerio de Trabajo, Sección de Prevención de Accidentes e Higiene del Trabajo, [1947?]. 413 pp.

Industrial Relations

Collective bargaining: An analysis of union contracts in 17 industries. New York, National Industrial Conference Board, Inc., 1947. Loose-leaf.

Tabulation of provisions found in 272 union agreements, covering, among other subjects, union security, wages and hours, seniority, vacations, holidays, and grievance procedure.

Collective bargaining: How to make it more effective. A statement on national policy by the research and policy committee of the Committee for Economic Development. New York, Committee for Economic Development, 1946. 24 pp. Single copies free.

The committee recommends certain voluntary procedures by management and unions, as well as a legislative framework, for effective collective bargaining. The members believe that such a basis for collective bargaining will help to prevent strife detrimental to the general public, which has a real interest in industrial peace.

Seniority clauses in labor contracts. (*In* Iowa Law Review, Iowa City, November 1946, pp. 107–118. $1.)

This article on workers' seniority rights was compiled from many sources (principally decisions of courts and labor adjustment boards), which are cited in footnotes to the article.

The "Toledo plan." By Edward L. Cushman and others. Detroit, Wayne University, Institute of Industrial Relations, 1947. 50 pp.; processed.

Reviews the origin and development of the Toledo (Ohio) Labor-Management-Citizens Committee and analyzes its policy and the procedural problems it has encountered in the attempt to maintain good labor-management relations. The writers discuss what they regard as the success of the Toledo plan, and raise issues relevant to any consideration of such a plan for the Detroit industrial-relations scene.

Strikes and lockouts in Canada during 1946. (*In* Labor Gazette, Department of Labor, Ottawa, March 1947, pp. 421–451.)

Detailed data for 1946 with summary figures, by year, 1901–46.

Un anno di trattative sindacali (dagli accordi del dicembre 1945 alla tregua del 27 ottobre 1946)—note e documenti. Rome, Confederazione Generale dell'Industria Italiana, 1946. 209 pp.

Succinct, factual account of labor-management relations in Italy since liberation, covering arrangements for the freezing of employment, establishment of the cost-of-living bonus, revision of the wage system, the wage truce, etc. Shows the policies of the General Confederation of Industry and the General Confederation of Labor on these matters. Documents reproduced include the agreement of these and other organizations on prohibition of dismissal of workers, resolutions of the General Confederation of Industry, and statements of officials of the General Confederation of Labor on wages, unemployment, etc.

Compulsory arbitration in New Zealand. By Leonard Cohen. (*In* Personnel Journal, New York, March 1947, pp. 310–315. 75 cents.)

Evaluation of New Zealand's compulsory arbitration system for the prevention and settlement of labor disputes.

Labor and Social Legislation

A compilation of general labor laws of Louisiana, with citations. Baton Rouge, Department of Labor, 1947. 559 pp.

Labor laws [of South Carolina]. Columbia, Department of Labor, 1946. 43 pp.

Court decisions on teacher tenure reported in 1946. Washington, National Education Association, Committee on Tenure and Academic Freedom, 1947. 20 pp. 25 cents.

High spots in State school legislation enacted in 1946. Washington, National Education Association, Research Division, 1947. 34 pp.; processed.

Subjects of the legislation summarized include teacher tenure, retirement, and sick leave.

Aspectos de la legislación social Peruana: Prontuario de la legislación del trabajo. Lima, Ministerio de Justicia y Trabajo, Dirección General de Trabajo, October 1946. 46 pp.

Labor Organizations and Activities

History of the labor movement in the United States from colonial times to the founding of the American Federation of Labor. By Philip S. Foner. New York, International Publishers, 1947. 576 pp., bibliographical footnotes. $4.50.

Unionizing technical workers. By Abraham A. Desser. (*In* Conference Board Management Record, National Industrial Conference Board, Inc., New York, March 1947, pp. 49–52.)

Shows the prevalence of provisions on certain specific points in collective-bargaining agreements covering technical employees.

French labor from Popular Front to liberation. By Henry W. Ehrmann. New York, Oxford University Press, 1947. 329 pp., bibliographical footnotes. $4.

Comprehensive, well-documented study of development of the French trade-union movement, 1934–44, from the rise of the Popular Front to the time of liberation from German occupation. The book is divided into three parts: Prewar (1934–39), war (September 1939–May 1940), and Vichy (June 1940–August 1944). Subjects discussed include the split in the General Confederation of Labor, Popular Front labor legislation, economic reform, Catholic trade-union movement, the General Confederation of Labor's break with the Communists, and labor in the war economy.

La participation de la F. S. M. aux travaux du Conseil Économique et Social de l'O. N. U. By Georges Fischer. (*In* Revue Française du Travail, Ministère du Travail et de la Sécurité Sociale, Paris, April 1947, pp. 309–319.)

Step-by-step survey of relations of World Federation of Trade Unions with the Economic and Social Council of the United Nations, April 1945–March 1947, and some historical background of world labor organization. Documentation is from publications of the Economic and Social Council and the World Federation of Trade Unions.

Migration

Immigration restriction in the United States. By Helen F. Eckerson and Gertrude Krichefsky. (*In* Monthly Review of Immigration and Naturalization Service, U. S. Department of Justice, Washington, January 1947, pp. 82–91, chart. 10 cents.)

Explains the national origins provision of the Immigration Act of 1924, the method of determining quotas on the basis of national origins, and the effects on immigration of the quota restrictions. Statistics show annual quotas allotted and number of immigrants admitted, by quota country, in years ended June 30, 1925 to 1946.

Internal migration in peace and war. By Henry S. Shryock, Jr., and Hope Tisdale Eldridge. (*In* American Sociological Review, Evanston, Ill., February 1947, pp. 27–39, maps, chart. $1.)

Analysis of U. S. Bureau of the Census data for the period from April 1, 1935, to April 1, 1940, as to regional shifts in population; and as to age, sex, color, education, employment status, and occupations of migrants. Consistency of wartime and prewar population movements are examined with respect to direction and volume.

La nouvelle organisation de l'immigration en France. By Edouard Rossignol. (*In* Revue Française du Travail, Ministère du Travail et de la Sécurité Sociale, Paris, April 1947, pp. 320–326.)

Describes the operations of the French National Immigration Office, and the plan for recruitment and control of immigration under terms of the decree of March 26 and the order of November 2, 1945.

The migration of native laborers in South Africa. By Wilbert E. Moore. (*In* Milbank Memorial Fund Quarterly, New York, October 1946, pp. 401–419; also reprinted.)

Minority Groups

Local regulation of discriminatory employment practices. By Alex Elson and Leonard Schanfield. (*In* Yale Law Journal, New Haven, Conn., February 1947, pp. 431–457.)

Reviews the status of existing Federal and State legislation and municipal ordinances applicable to discriminatory employment practices, suggests features held to be essential in the drafting of regulatory provisions, and appraises the importance of local agencies to administer such provisions.

The Negro worker in Chicago industry. By Dorothy M. Powell. (*In* Journal of Business of the University of Chicago, January 1947, pp. 21–32, charts. $1.25.)

Our Negro veterans. By Charles G. Bolté and Louis Harris. New York, Public Affairs Committee, Inc., 1947. 31 pp., bibliography, charts. (Public affairs pamphlet No. 128.)

Based on results of surveys by the U. S. Bureau of the Census and several nonofficial agencies. The studies show that job and housing needs, and adequate education and training facilities, are the most important of the Negro veterans' problems.

Review of first year's operation of the New York State law against discrimination, July 1945–July 1946. [Albany], State Commission Against Discrimination, 1946. 15 pp.

This law forbids discrimination, in employment practices, because of race, creed, color, or national origin. A brief article on the law and its operation was published in the Monthly Labor Review for January 1947.

Vocations for Maori youth. By H. C. McQueen. [Wellington], New Zealand, Council for Educational Research, 1945. 189 pp., bibliography, illus. (Educational research series, No. 23.) 10s., Oxford University Press, London, etc.

Discusses and makes suggestions for dealing with the problem of employment of Maoris in New Zealand. Education and vocational guidance, race prejudice, increase in population, and land questions are among the topics considered.

Prices and Price Control

Chronology of the Office of Price Administration, January 1941—November 1946. By Laurence E. Tilley. Washington, U. S. Office of Price Administration, 1946. 71 pp. (Historical reports on war administration, Miscellaneous publication No. 1.) $1, Superintendent of Documents, Washington.

Comparison of actual retail prices, Canada and United States. Ottawa, Wartime Prices and Trade Board, 1947. 10 pp.; mimeographed.

Results of a survey conducted in January 1947 by the Canadian Wartime Prices and Trade Board, comparing prices of food, clothing, and home furnishings in the following cities: Vancouver and Seattle; Winnipeg and Minneapolis; Toronto, Detroit, and Cleveland; Ottawa and Syracuse; and Montreal and Boston. The Board also has issued a report (mimeographed) on a second survey, covering food and clothing, made in February in four of the Canadian and five of the American cities.

Wholesale prices, annual supplement, 1946. Ottawa, Department of Trade and Commerce, Bureau of Statistics, 1947. 31 pp.; processed. 25 cents.

Consolidation of figures on wholesale prices in Canada published monthly in "Prices and price indexes." Data are given by month and year, 1913–46.

Le mouvement des prix. (*In* Études et Conjoncture; Union Française, Ministère de l'Économie Nationale, Institut National de la Statistique et des Études Économiques, Paris, December 1946—January 1947, pp. 129–138.)

Study of price trends in France from July 1944 to December 1946, based on official prices and a limited number of black market quotations. Variations in changes in prices of items entering into the indexes are analyzed.

Oversikt over norsk prisregulering. By Sigurd Lorentzen. (*In* Sosialt Arbeid, Norsk Forening for Sosialt Arbeide, Oslo, hefte 9–10, 1946, pp. 257–276, charts.)

History of price regulation in Norway from 1939 to 1946, with some discussion of action taken prior to 1939.

Profit Sharing and Pension Plans

Profit sharing and pension plans (law and taxes). By K. Raymond Clark. *Profit sharing and pension plans (practical planning and administration).* By C. Morton Winslow. Chicago, Commerce Clearing House, Inc., 1946. 2 vols., 416 and 272 pp. $6.50 for set.

Retirement plans for public employees. Chicago, Municipal Finance Officers' Association of the United States and Canada, 1946. 36 pp., charts; processed. $1.

Discussion of basic principles of retirement plans for public employees, intended as a guide in the establishment of such plans.

Retirement plans in public health nursing services. (*In* Public Health Nursing, New York, March 1947, pp. 158, 159. 35 cents.)

Report on the prevalence of these plans in 1946, with summary data on their provisions, as shown in the annual survey by the National Organization for Public Health Nursing.

Questions and answers on the Railroad Retirement Act as amended July 31, 1946. Chicago, U. S. Railroad Retirement Board, 1947. 118 pp.

Social Security (General)

Social security reading list, 1947. Prepared by Robert M. Ball. Washington, American Council on Education, Committee on Education and Social Security, 1947. 40 pp. 50 cents.

References to material on social security in the United States and foreign countries. A list of bibliographies is included.

Social security yearbook, 1945. Washington, Federal Security Agency, Social Security Administration, 1947. 182 pp., charts. 75 cents, Superintendent of Documents, Washington.

Annual supplement to Social Security Bulletin, embodying basic data as to social-security and related programs.

The Belgian social security scheme. By Paul Goldschmidt. (*In* International Labor Review, Montreal, January-February 1947, pp. 46–61. 50 cents. Distributed in United States by Washington Branch of I. L. O.)

Outlines the characteristics and gives some results of the social-security scheme which began operation in Belgium on January 1, 1945.

The new British system of social security. By Carl Farman and Catherine Perrins. (*In* Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, February 1947, pp. 9–19. 15 cents, Superintendent of Documents, Washington.)

Summarizes the new social-security provisions (being put into effect gradually), and shows how they compare with those superseded.

Annual report of the Department of National Health and Welfare, [Canada], for the fiscal year ended March 31, 1946. Ottawa, 1947. 104 pp.

Includes data on studies in the field of industrial hygiene, on pensions for the aged and blind, and on the first year's operation of the Family Allowances Act of Canada.

Den ny lovgivning om alders- og invaliderente i Danmark og Sverige. By J. Bonnesen and G. Drachmann. (*In* Socialt Tidsskrift, Arbejds- og Socialministeriet, Copenhagen, January 1947, pp. 1–30, charts.)

Deals with laws on old-age and invalidity insurance enacted in 1946 in Denmark and Sweden, showing changes they made in previous legislation.

La seguridad social en el Uruguay: El problema de las jubilaciones y pensiones. By Raúl Cordones Alcoba. Montevideo, Imprenta "Atenas", 1946 58 pp.

Unemployment Insurance

Compilation of material implementing the New York State unemployment insurance law—rules, regulations, administrative interpretations, Federal and State statutes, and interstate agreements. [New York], Department of Labor, Division of Placement and Unemployment Insurance, January 15, 1947. 117 pp.; processed.

Report of the New York State Unemployment Insurance Advisory Council for the year 1946. New York, 1947. 30 pp.; mimeographed.

Legislative recommendations are made as to dependents' allowances, broader coverage, and benefits during labor disputes. Critical budgetary deficiencies, attributed to insufficient grants of Federal funds, are discussed, and the recommendation is made that the Federal unemployment tax be handled entirely by the States and that they be made responsible for administrative costs.

Merchant seamen during the reconversion. By Herman M. Sturm. (*In* Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, February 1947, pp. 20–22. 15 cents, Superintendent of Documents, Washington.)

Discusses the classes of seamen brought under unemployment insurance coverage by amendments of 1946 to the Federal Social Security Act, and the problems involved in maritime employment.

Principles underlying labor-dispute disqualification. By Marsile J. Hughes. Washington, Federal Security Agency, Social Security Administration, 1946. 104 pp. (Attachment to Unemployment Compensation Program letter No. 124.)

Analyses of the various principles and definitions involved in unemployment-compensation disqualification because of labor disputes, with discussion of British experience in this connection.

Vacations

Paid vacations and holidays in 1947. By Lyle Lodwick. (*In* Conference Board Management Record, National Industrial Conference Board, Inc., New York, April 1947, pp. 69–75.)

Summary of vacation and holiday practices among 230 companies which reported to the National Industrial Conference Board in its annual survey.

Vacations for industrial workers. New York, Metropolitan Life Insurance Co., Policyholders Service Bureau, Group Insurance Division, [1946?]. 43 pp.

Based on the 1946 vacation practices of 121 companies and the 1947 plan of 1 company.

Wages, Salaries, and Hours of Labor

Wages, prices, profits: The automobile workers' case for a 23½-cent wage increase. Detroit, International Union, United Automobile, Aircraft, and Agricultural Implement Workers of America (UAW–CIO), March 1947. 58 pp., charts. 25 cents.

Argument in support of the recent union wage demand upon the automobile manufacturers. Analyzes the fluctuations in automobile workers' earnings and purchasing power since 1940, and considers past and prospective profits of the automobile industry. Attempts to show how wage raises and reduced prices are related to increased purchasing power and output.

Union wage scales: Building trades, July 1, 1946; Newspaper printing trades, July 1, 1946. Washington, U. S. Bureau of Labor Statistics, 1947. 128 and 30 pp., respectively; mimeographed. Free.

Wage structure, Series 2, No. 38; Paints and varnishes, 1946. Washington, U. S. Bureau of Labor Statistics, 1947. 25 pp., charts; processed. Free.

Report of A. F. Whitney, president, Brotherhood of Railroad Trainmen, on railroad rules-wage movement, United States, 1944–46. Cleveland, Brotherhood of Railroad Trainmen, 1946. 182 pp. Free.

Salary rate structure of the local governments of Chicago. Chicago, Civic Federation, 1946. 43 pp., charts.

Pay scales effective at beginning of 1946 are analyzed, and compared with rates paid for similar work in private employment in Chicago and in both public and private employment in other sections of the United States.

A report on teachers' salaries in Chicago. Chicago, Civic Federation, 1946. 59 pp.; mimeographed supplement, 10 pp.

Compares salaries of teachers with those of other professional groups, in Chicago and other large cities.

Wages and hours in the primary textiles industry in Canada, 1945. Ottawa, Department of Labor, 1947. 20 pp. (Supplement to Labor Gazette, February 1947.)

Statistique des salaires ouvriers dans les enterprises industrielles, [Bulgaria], 1941–45. Sofia, Dirección Générale de la Statistique, 1946. 109 pp.

Shows average daily earnings of industrial workers, 1941–45, and number of workers, according to gross daily earnings, 1943–45, by sex, age groups, and occupations. Text is in Bulgarian and French.

Los salarios en la industria manufacturera de Guatemala. (*In* Boletín de la Dirección General de Estadística, Guatemala, C. A., January 1947, pp. 7–18, charts.)

Data on wages and hours of workers, by sex, occupation, and industry, in manufacturing industries of Guatemala in December 1945.

Wages and prices in the U. S. S. R. By Reginald Bishop. London, British-Soviet Society, 1946. 24 pp. 6d.

Discussion of wages and prices in the Soviet Union in the early part of 1946, and of "socialized" income (old-age pensions, family allowances, medical services, etc.).

Women in Industry

Equal pay for women. Washington, U. S. Department of Labor, Women's Bureau, 1947. (Leaflet No. 2.) Free.

Working wives, their income, and the new income tax [in Canada]. (*In* Labor Gazette, Department of Labor, Ottawa, March 1947, pp. 293–297, charts.)

The forewoman and her position in industry. By Maude Eaton. Wellington, New Zealand, Department of Scientific and Industrial Research, Industrial Psychology Division, 1946. 13 pp.; mimeographed. 1s.

General Reports

Czechoslovakia. By Edgar P. Young. London, St. Botolph Publishing Co., Ltd., 1946. 118 pp. (Citizens of the world series.) 5s.

Survey of political, economic, and social conditions in Czechoslovakia. Trade-unions, works councils, cooperatives, and social-security laws are discussed.

Anuario estadístico del Peru, 1944–45. Lima, Ministerio de Hacienda y Comercio, Dirección Nacional de Estadística, 1947. 755 pp., maps, charts.

Contains statistics of prices and cost of living, cooperatives, social insurance, employment and unemployment, and industrial accidents.

Estatistica industrial, [Portugal], 1945. Lisbon, Instituto Nacional de Estatística, 1946. 362 pp. (In Portuguese and French.)

Includes data, by industry, on employment, totals of wages paid and days worked, and industrial accidents.

Native welfare in the Union of South Africa. By J. H. Hofmeyr. New York, Union of South Africa Government Information Office, [1946?]. 6 pp.

Address at meeting of Natives' Representative Council in Pretoria in November 1946 by the then Acting Prime Minister of the Union of South Africa.

Guide to information about Sweden. Compiled by Naboth Hedin. New York, American Swedish News Exchange, Inc., 1947. 61 pp.

Bibliography of material dealing with a wide range of subjects, including cooperatives, health, housing, labor, and social welfare.

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